West Virginia Department of Environmental Protection
Division of Air Quality

Joe Manchin, III
Governor

Randy C. Huffman
Cabinet Secretary

Permit to Operate

Pursuant to

Title V

of the Clean Air Act

Issued to:

Union Carbide Corporation
South Charleston
R30-03900003-2006

John A. Benedict
Director

Issued: December 28, 2006 • Effective: January 11, 2007

Permit Number: **R30-03900003-2006**
Permittee: **Union Carbide Corporation**
Facility Name: South Charleston
Mailing Address: PO Box 8361
South Charleston, WV 25303

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	South Charleston, Kanawha County, West Virginia
Telephone Number:	(304) 747-7000
Type of Business Entity:	Corporation
Facility Description:	Industrial Organic Chemical Manufacturing
SIC Codes:	2869
UTM Coordinates:	439.67 km Easting • 4,246.72 km Northing • Zone 17

Permit Writer: Jesse Hanshaw, P.E.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

Table of Contents

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
~~Alkyl Alkanolamines Production Unit~~ West Mainland – Unassigned Storage Vessels					
~~A-801~~	~~E-805~~	~~Oxide Scrubber~~			
~~D-805~~	~~E-806~~	~~8 Still Vents~~			~~A-800/C-800~~
~~A-800~~	~~E-800~~	~~Water Scrubber~~			
~~D-802~~	~~E-802~~	~~10 Still Jets~~			~~A-800/C-800~~
~~D-801~~	~~E-801~~	~~9 Still Jets~~			~~A-800/C-800~~
~~D-804~~	~~E-804~~	~~13 Still Jets~~			~~A-800/C-800~~
~~D-803~~	~~E-803~~	~~12 Still Jets~~			~~A-800/C-800~~
~~800~~	~~E800~~	~~Vessel 800 System~~	~~1966~~	~~Nap~~	~~C800~~
~~808~~	~~E806 or E800~~	~~Vessel 808 System~~	~~1988~~	~~Nap~~	~~C800 or vac jets~~
~~809~~	~~E801 or E800~~	~~Vessel 809 System~~	~~1988~~	~~Nap~~	~~C800 or vac jets~~
~~810~~	~~E802 or E800~~	~~Vessel 810 System~~	~~1993~~	~~Nap~~	~~C800 or vac jets~~
~~812~~	~~E803~~	~~Vessel 812 System~~	~~1963~~	~~Nap~~	
~~813~~	~~E804~~	~~Vessel 813 System~~	~~1986~~	~~Nap~~	
~~EOP~~	~~E805~~	~~EO Purge System~~	~~Nap~~	~~Nap~~	~~C801~~
200	T200	Tank 200	1967	********	
~~241~~	~~T241~~	~~Tank 241~~	~~1970~~	~~********~~	
~~298~~	~~T298~~	~~Tank 298~~	~~1967~~	~~********~~	
~~299~~	~~T299~~	~~Tank 299~~	~~1967~~	~~********~~	
~~368~~	~~E800~~	~~Tank 368~~	~~1967~~	~~********~~	~~C800~~
~~369A~~	~~T369A~~	~~Tank 369A~~	~~1954~~	~~********~~	
~~369B~~	~~T369B~~	~~Tank 369B~~	~~1954~~	~~********~~	
~~369C~~	~~T369C~~	~~Tank 369C~~	~~1954~~	~~********~~	
~~489B~~	~~T489B~~	~~Tank 489B~~	~~1976~~	~~********~~	
~~503~~	~~T503~~	~~Tank 503~~	~~1967~~	~~********~~	
~~504~~	~~T504~~	~~Tank 504~~	~~1967~~	~~********~~	
~~529~~	~~T529~~	~~Tank 529~~	~~1974~~	~~********~~	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
~~567~~	~~T567~~	~~Tank 567~~	~~1940~~	~~********~~	
~~568~~	~~T568~~	~~Tank 568~~	~~1940~~	~~********~~	
~~569~~	~~T569~~	~~Tank 569~~	~~1934~~	~~********~~	
~~570A~~	~~T570A~~	~~Tank 570A~~	~~1967~~	~~********~~	
~~570B~~	~~T570B~~	~~Tank 570B~~	~~1967~~	~~********~~	
~~571~~	~~E800~~	~~Tank 571~~	~~1991~~	~~********~~	~~C800~~
~~572~~	~~T572~~	~~Tank 572~~	~~1958~~	~~********~~	
~~580~~	~~T580~~	~~Tank 580~~	~~1968~~	~~********~~	
~~581~~	~~T581~~	~~Tank 581~~	~~1973~~	~~********~~	
~~582~~	~~T582~~	~~Tank 582~~	~~1939~~	~~********~~	
~~583~~	~~T583~~	~~Tank 583~~	~~1972~~	~~********~~	
~~584~~	~~T584~~	~~Tank 584~~	~~1986~~	~~********~~	
~~585~~	~~T585~~	~~Tank 585~~	~~1943~~	~~********~~	
~~587~~	~~T587~~	~~Tank 587~~	~~1944~~	~~********~~	
~~588~~	~~T588~~	~~Tank 588~~	~~1944~~	~~********~~	
~~1501~~	~~T1501~~	~~Tank 1501~~	~~1966~~	~~********~~	
~~1502A~~	~~T1502A~~	~~7Tank 1502A~~	~~1967~~	~~********~~	
~~1502B~~	~~T1502B~~	~~Tank 1502B~~	~~1967~~	~~********~~	
~~1503A~~	~~T1503A~~	~~Tank 1503A~~	~~1967~~	~~********~~	
~~1503B~~	~~T1503B~~	~~Tank 1503B~~	~~1967~~	~~********~~	
~~1504~~	~~T1504~~	~~Tank 1504~~	~~1966~~	~~********~~	
~~1505~~	~~T1505~~	~~Tank 1505~~	~~1967~~	~~********~~	
~~1506A~~	~~T1506A~~	~~Tank 1506A~~	~~1967~~	~~********~~	
~~1506B~~	~~T1506B~~	~~Tank 1506B~~	~~1967~~	~~********~~	
~~1507A~~	~~T1507A~~	~~Tank 1507A~~	~~1967~~	~~********~~	
~~1507B~~	~~T1507B~~	~~Tank 1507B~~	~~1967~~	~~********~~	
~~1508A~~	~~T1508A~~	~~Tank 1508A~~	~~1967~~	~~********~~	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
~~1508B~~	~~T1508B~~	~~Tank 1508B~~	~~1967~~	~~********~~	
~~1509A~~	~~T1509A~~	~~Tank 1509A~~	~~1991~~	~~********~~	
~~1509B~~	~~T1509B~~	~~Tank 1509B~~	~~1991~~	~~********~~	
~~1510A~~	~~T1510A~~	~~Tank 1510A~~	~~1991~~	~~********~~	
~~1510B~~	~~T1510B~~	~~Tank 1510B~~	~~1991~~	~~********~~	
~~1511A~~	~~T1511A~~	~~Tank 1511A~~	~~1991~~	~~********~~	
~~1511B~~	~~T1511B~~	~~Tank 1511B~~	~~1991~~	~~********~~	
5694	T5694	Tank 5694	1942	********	
~~9207~~	~~T9207~~	~~Tank 9207~~	~~1952~~	~~********~~	
9636	T9636	Tank 9636	1958	********	
~~L800TT~~	~~E808~~	~~Tank Truck Rack~~	~~Nap~~	~~Nap~~	
~~L800RC~~	~~E809~~	~~Tank Car Rack~~	~~Nap~~	~~Nap~~	
~~L42TT~~	~~E810~~	~~Tank Truck Rack~~	~~Nap~~	~~Nap~~	
~~C800~~	~~E800~~	~~AA Scrubber~~	~~1986~~	~~Nap~~	
~~C801~~	~~E805~~	~~EO Scrubber~~	~~1995~~	~~Nap~~	
Gum Base Plant (PVA)					
T-2647	2647	Tank 2647 – No Regulated Pollutant	1935/1992	********	
T-3011	3011	Tank 3011	OOS*	OOS	
T-3014	3014 or E25 or E27 or E533	Tank 3014	1935	********	None or B25 or B27 or Vessel E533
T-3021	3021 or E25 or E27	Tank 3021	1965	********	None or B25 or B27
T-3025	3025	Tank 3025	OOS	OOS	
T-3030	E25 or E27 or E-531 or E-533	Tank 3030	1996	********	B25 or B27 or Vessel E531 or Vessel E533
T-3031	E25 or E27 or E-531 or E-533	Tank 3031	1996	********	B25 or B27 or Vessel E531 or Vessel E533
T-3032	3020	Tank 3032	OOS	OOS	
T-3046	3046	Tank 3046	OOS	OOS	
T-3047	3047	Tank 3047	OOS	OOS	
T-3054	3054	Tank 3054	OOS	OOS	
T-3055	3055	Tank 3055	OOS	OOS	
T-3056	3056	Tank 3056	OOS	OOS	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
T-3057	3057	Tank 3057	OOS	OOS	
T-3078	3078	Tank 3078	OOS	OOS	
T-3079	3079	Tank 3079	OOS	OOS	
T-3080	3080 or E25 or E27	Tank 3080	1961	********	None or B25 or B27
T-5930	5930	Tank 5930	1967	********	
T-5966	5966	Tank 5966	1961	********	
T-9011	9011	Tank 9011 (*******)	1960	********	
C-215	OSS	Vessel C215 (OOS) (**********)	OOS	OOS	
C-216	OSS	Vessel C216 (OOS)) (**********)	OOS	OOS	
C-217B	OSS	Vessel C217B (OOS)) (**********)	OOS	OOS	
C-218	E-229	Baghouse C218	Nap	Nap	
C-219	E-228	Baghouse C219	Nap	Nap	
C-501	E25 or E27	Vessel C501 (*********)	1996	********	B25 or B27
C-528B	E25 or E27	Vessel C528B (*********)	1996	********	B25 or B27
C-532	E25 or E27	Vessel C-532 (********** ********)	1996	********	B25 or B27
C-650R	650R or e25 or E27	Vessel 650R (*********)	1996	********	None or B25 or B27
C-651	E25 or E27	Vessel C651 (********** *********)	1996	********	B25 or B27
C-0101	OSS	Vessel C0101 (OOS) (**********)	OOS	OOS	
C-0102	OSS	Vessel C0102 (OOS) (**********)	OOS	OOS	
C-0103	OSS	Vessel C0103 (OOS) (**********)	OOS	OOS	
C-0209	OOS	Vessel C0209 (OOS) (**********)	OOS	OOS	
C-0210	E-217	Vessel C0210 (OOS) (**********)	OOS	OOS	
C-0250	O250	Vessel C0250 (**********)	1966	********	
D-2	OSS	Vessel D2 (**********)	OOS	OOS	
D-509	509	Tank 509	1995	********	
D-2040	2040	Vessel D-2040 (**********)	1997	********	
E-503	E25 or E27	Vessel E-503 (*********)	Nap	Nap	B25 or B27
E-524	E25 or E27	Vessel E-524 (**********)	Nap	Nap	B25 or B27
E-528	E25 or E27	Vessel E-528 (**********)	Nap	Nap	B25 or B27
E-531	E25 or E27	Vessel E-531 (*********)	Nap	Nap	B25 or B27
E-533	E25 or B25 or E-533	Vessel E533 (*******)	Nap	Nap	B25 or B27 or Vessel E-533
E-652	E25 or E27	Vessel E-652 (*********)	Nap	Nap	B25 or B27
Y-520	E25 or E27	Vessel Y520 (*********)	1996	********	B25 or B27
Y-525	E25 or E27	Vessel Y525 (*********)	1996	********	B25 or B27
Y-228	E-228 or E-229	Packaging	Nap	Nap	
L-221	E25 or E27	TT Rack	Nap	Nap	B25 or B27

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
L-222	222L	Loading Rack	OOS	OOS	
L-223	223L	Loading Rack	OOS	OOS	
GBRS	Not Applicable	Industrial Refrigeration System	Nap	Nap	
B25 or B27	IPH or E25 or E27	Island Power House	Nap	Nap	
GBHDR	IPH or E25 or E27	Plant Header to Island Power House	Nap	Nap	B25 or B27
~~Vinyl Methyl Ether (VME)~~					
~~1301~~	~~E-134 or E137*~~	~~Vessel 1301 (********)~~	~~Prior to 1972~~	~~********~~	~~C5F or none~~
~~1305~~	~~E-134 or E-137~~	~~Vessel 1305 (********)~~	~~Prior to 1972~~	~~********~~	~~C5F or none~~
~~7000~~	~~E-134 or E-137~~	~~Vessel 7000 (********)~~	~~1967~~	~~********~~	
~~7001~~	~~E-136~~	~~Vessel 7001 (********)~~	~~1968~~	~~********~~	~~Scrubber C136~~
~~7002~~	~~E-136~~	~~Vessel 7002 (********)~~	~~1968~~	~~********~~	~~Scrubber C136~~
~~7012~~	~~Not applicable~~	~~Vessel 7012 (********)~~	~~1946~~	~~Nap~~	
~~7013~~	~~E-134 or E-137~~	~~Vessel 7013 (********)~~	~~Nap~~	~~Nap~~	~~C5F or none~~
~~7014~~	~~Not applicable~~	~~Vessel 7014 (********)~~	~~Nap~~	~~Nap~~	
~~7015~~	~~E-134 or E-137~~	~~Vessel 7015 (**********)~~	~~Nap~~	~~Nap~~	~~C5F or none~~
~~7017~~	~~E134 or E-137~~	~~Vessel 7017 (********)~~	~~Prior to 1972~~	~~********~~	~~C5F or none~~
~~7018~~	~~E-134 or E-137~~	~~Vessel 7018 (*********)~~	~~Nap~~	~~Nap~~	~~C5F or none~~
~~7174~~	~~E-134 or E-137~~	~~Vessel 7174 (*********)~~	~~1965~~	~~Nap~~	~~C5F or none~~
~~7200~~	~~E-134 or E-137~~	~~Vessel 7200 (*********)~~	~~1968~~	~~********~~	~~C5F or none~~
~~7300~~	~~E-134 or E-137~~	~~Vessel 7300 (*********)~~	~~1945~~	~~********~~	~~C5F or none~~
~~7500~~	~~E-134 or E-137~~	~~Vessel 7500 (*********)~~	~~1962~~	~~********~~	~~C5F or none~~
~~7600~~	~~E-134, or E-137~~	~~Vessel 7600 (*********)~~	~~1975~~	~~********~~	~~C5F or none~~
~~7700~~	~~E-134 or E-137~~	~~Vessel 7700 (*********)~~	~~1945~~	~~********~~	~~C5F or none~~
~~7900 and C5F~~	~~E-134~~	~~Vessel 7900 (Furnace #5)~~	~~1940~~	~~********~~	
~~C136~~	~~E-136~~	~~Scrubber~~	~~Nap~~	~~Nap~~	
~~NUTMP~~	~~Not applicable~~	~~Refrigeration System~~	~~Before 1984~~	~~Nap~~	
~~1102~~	~~T-1102~~	~~Tank 1102~~	~~1931~~	~~********~~	
~~1104~~	~~E-134 or E-137~~	~~Tank 1104~~	~~1966~~	~~********~~	~~C5F or none~~
~~1105~~	~~E-134 or E-137~~	~~Tank 1105~~	~~1962~~	~~********~~	~~C5F or none~~
~~1106~~	~~E-134 or E-137~~	~~Tank 1106~~	~~1962~~	~~********~~	~~C5F or none~~
~~1107~~	~~E-134 or E-137~~	~~Tank 1107~~	~~1966~~	~~********~~	~~C5F or none~~
~~1108~~	~~E-134 or E-137~~	~~Tank 1108~~	~~1966~~	~~********~~	~~C5F or none~~
~~1109~~	~~E-134 or E-137~~	~~Tank 1109~~	~~1966~~	~~********~~	~~C5F or none~~
~~1110~~	~~E-134 or E-137~~	~~Tank 1110~~	~~1966~~	~~********~~	~~C5F or none~~
~~1111~~	~~E-134 or E-137~~	~~Tank 1111~~	~~1966~~	~~********~~	~~C5F or none~~
~~1112~~	~~E-134 or E-137~~	~~Tank 1112~~	~~1966~~	~~********~~	~~C5F or none~~
~~1115~~	~~E-134 or E-137~~	~~Tank 1115~~	~~1966~~	~~********~~	~~C5F or none~~
~~1122~~	~~E-134 or E-137~~	~~Tank 1122~~	~~1963~~	~~********~~	~~C5F or none~~
~~1145~~	~~T-1145~~	~~Tank 1145~~	~~1963~~	~~********~~	
~~1148~~	~~T-1148~~	~~Tank 1148~~	~~1963~~	~~********~~	
~~1153~~	~~T-1153~~	~~Tank 1153~~	~~1963~~	~~********~~	
~~1195~~	~~E-134 or E-137~~	~~Tank 1195~~	~~1933~~	~~********~~	~~C5F or none~~
~~1197~~	~~T-1197~~	~~Tank 1197~~	~~1936~~	~~********~~	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
~~1198~~	~~Vents to T-1199~~	~~Tank 1198~~	~~1968~~	~~********~~	
~~1199~~	~~T-1199~~	~~Tank 1199~~	~~1931~~	~~********~~	
~~1225~~	~~T-1225~~	~~Tank 1225~~	~~1943~~	~~********~~	
~~1226~~	~~E-134 or E-137~~	~~Tank 1226~~	~~1999~~	~~********~~	~~C5F or none~~
~~1227~~	~~E-134 or E-137~~	~~Tank 1227~~	~~1962~~	~~********~~	~~C5F or none~~
~~1241~~	~~T-1241~~	~~Tank 1241~~	~~1963~~	~~********~~	
~~1255~~	~~T-1255~~	~~Tank 1255~~	~~1966~~	~~********~~	
~~2309~~	~~T-2309~~	~~Tank 2309 No Regulated Pollutants (water tank)~~	~~Nap~~	~~********~~	
~~L105RC~~	~~E-134 or E-137~~	~~Rail Car Rack~~	~~Nap~~	~~Nap~~	
~~L105TT~~	~~TT105L~~	~~Tank Truck Racks (various locations)~~	~~Nap~~	~~Nap~~	
~~L105DR~~	~~DR105L~~	~~Drum Loading (various locations)~~	~~Nap~~	~~Nap~~	
~~C105CLD~~	~~E-134 or E-137~~	~~Cylinder Loading (various locations)~~	~~Nap~~	~~Nap~~	

~~*E-137 is the emission point identification assigned to either of two pressure relief devices that could vent to the air in the event that C5F is not available.~~

Energy Systems					
#25 Boiler	25E	Coal/NG/Liquid Residue Boiler	1953	323 MM Btu/hr	ESP
#26 Boiler	26E	NG Boiler		352 MM Btu/hr	
#27 Boiler	27E	NG/Waste Gas Boiler		353 MM Btu/hr	
001	A-001	portable diesel auxiliary air compressors			
002	A-002	portable diesel auxiliary air compressors			
003	A-003	portable diesel auxiliary air compressors			
004	A-004	portable diesel auxiliary air compressors			
Coal Handling System	Fugitive	Stockpile, conveyors, elevator, bunkers, crushers, pulverizers and feeders	Prior to 1960		
Ash Handling	Fugitive	Auger, funnel, mix tank, decanter and holding tank			
Oxide Adducts					
9120	T9120	Tank 9120	1950	********	
9121	T9121	Tank 9121	1950	********	
9128	T9128	Tank 9128	1953	********	
9129	T9129	Tank 9129	1953	********	
9151	T9151	Tank 9151	1943	********	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
9180	T9180	Tank 9180	1957	*******	
9181	T9181	Tank 9181	1957	*******	
9182	T9182	Tank 9182	1957	*******	
9186	T9186	Tank 9186	1966	*******	
9187	T9187	Tank 9187	1966	*******	
9223	T9223	Tank 9223	1952	*******	
9228	T9228	Tank 9228	1947	*******	
9501	T9501	Tank 9501	1965	*******	
9502	T9502	Tank 9502	1968	*******	
9504	T9504	Tank 9504	1965	*******	
9505	T9505	Tank 9505	1965	*******	
9507	T9507	Tank 9507	1971	*******	
9509	T9509	Tank 9509	1978	*******	
9510	T9510	Tank 9510	1988	*******	
9511	T9511	Tank 9511	1990	*******	
9512	T9512	Tank 9512	1990	*******	
9513	T9513	Tank 9513	1990	*******	
9514	T9514	Tank 9514	1942	*******	
9550	T9550	Tank 9550	1978	*******	
9551	T9551	Tank 9551	1978	*******	
9552	T9552	Tank 9552	1978	*******	
9553	T9553	Tank 9553	1978	*******	
9554	T9554	Tank 9554	1978	*******	
9555	T9555	Tank 9555	1978	*******	
9556	T9556	Tank 9556	1967	*******	
9557	T9557	Tank 9557	1967	*******	
9558	T9558	Tank 9558	1967	*******	
9559	T9559	Tank 9559	1967	*******	
9560	T9560	Tank 9560	1961	*******	
9562	T9562	Tank 9562	1950	*******	
9563	T9563	Tank 9563	1972	*******	
9564	T9564	Tank 9564	1972	*******	
9565	T9565	Tank 9565	1954	*******	
9566	T9566	Tank 9566	1957	*******	
9567	T9567	Tank 9567	1953	*******	
9568	T9568	Tank 9568	1953	*******	
9569	T9569	Tank 9569	1966	*******	
9611	T9611	Tank 9611	1966	*******	
9612	T9612	Tank 9612	1966	*******	
9613	T9613	Tank 9613	1966	*******	
9614	T9614	Tank 9614	1966	*******	
9615	T9615	Tank 9615	1966	*******	
9616	T9616	Tank 9616	1966	*******	
9617	T9617	Tank 9617	1967	*******	
9619	T9619	Tank 9619	1967	*******	
9621	T9621	Tank 9621	1966	*******	
9622	T9622	Tank 9622	1966	*******	
9623	T9623	Tank 9623	1966	*******	
9624	T9624	Tank 9624	1966	*******	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
9625	T9625	Tank 9625	1966	*******	
9627	T9627	Tank 9627	1967	*******	
9629	T9629	Tank 9629	1967	*******	
9631	T9631	Tank 9631	1947	*******	
9632	T9632	Tank 9632	1947	*******	
9633	T9633	Tank 9633	1945	*******	
9634	T9634	Tank 9634	1951	*******	
9635	T9635	Tank 9635	1951	*******	
9637	T9637	Tank 9637	1947	*******	
9638	T9638	Tank 9638	1947	*******	
9639	T9639	Tank 9639	1947	*******	
9640	T9640	Tank 9640	1948	*******	
9641	T9641	Tank 9641	1948	*******	
9642	T9642	Tank 9642	1948	*******	
9643	T9643	Tank 9643	1942	*******	
9644	T9644	Tank 9644	1942	*******	
9645	T9645	Tank 9645	1942	*******	
9646	T9646	Tank 9646	1947	*******	
9647	T9647	Tank 9647	1946	*******	
9648	T9648	Tank 9648	1946	*******	
9649	T9649	Tank 9649	1946	*******	
9650	T9650	Tank 9650	1964	*******	
9651	T9651	Tank 9651	1952	*******	
9656	T9656	Tank 9656	1953	*******	
9657	T9657	Tank 9657	1956	*******	
9732	T9732	Tank 9732	1956	*******	
9733	T9733	Tank 9733	1957	*******	
9734	T9734	Tank 9734	1940	*******	
9735	T9735	Tank 9735	1950	*******	
9736	T9736	Tank 9736	1940	*******	
9738	T9738	Tank 9738	1966	*******	
9740	T9740	Tank 9740	1949	*******	
9749	T9749	Tank 9749	1957	*******	
9750	T9750	Tank 9750 (Sulfuric Acid)	1981	*******	
9751	T9751	Tank 9751	1966	*******	
9752	T9752	Tank 9752	1966	*******	
9756	T9756	Tank 9756	Prior to 1984	*******	
9757	T9757	Tank 9757	2004	*******	
9771	T9771	Tank 9771	1966	*******	
9772	T9772	Tank 9772	1966	*******	
9773	T9773	Tank 9773	1966	*******	
9774	T9774	Tank 9774	1966	*******	
9775	T9775	Tank 9775	1966	*******	
9776	T9776	Tank 9776	1966	*******	
9781	T9781	Tank 9781	1966	*******	
9782	T9782	Tank 9782	1966	*******	
9783	T9783	Tank 9783	1966	*******	
9784	T9784	Tank 9784	1966	*******	
9785	T9785	Tank 9785	1966	*******	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
9786	T9786	Tank 9786	1966	*******	
9793	T9793	Tank 9793	1964	*******	
9798	T9798	Tank 9798	1964	*******	
9811	T9811	Tank 9811	1966	*******	
9812	T9812	Tank 9812	1966	*******	
9813	T9813	Tank 9813	1966	*******	
9814	T9814	Tank 9814	1966	*******	
9815	T9815	Tank 9815	1966	*******	
9821	T9821	Tank 9821	1966	*******	
9822	T9822	Tank 9822	1966	*******	
9823	T9823	Tank 9823	1966	*******	
9824	T9824	Tank 9824	1966	*******	
9825	T9825	Tank 9825	1966	*******	
P700	E700	Prep System 1	1970	*******	
P701	E701	Prep System 2	1970	*******	
P716	E716	Prep System 3	1970	*******	
R703	E703	Reactor 1	1970	*******	
R704	E704	Reactor 2	1970	*******	
R705	E705	Reactor 4	1970	*******	
R706	E706	Reactor 5	1970	*******	
R708	E708	Reactor 6	1995	*******	
R707	E707	Reactor 7	1971	*******	
721T	E709	#1 Product Treatment Emiss. Pt. for Vac Jet	1970	*******	C709 and/or None
722T	E710	#2 Product Treatment Emiss. Pt. for Vac Jet	1970	*******	C710 and/or None
723T	E711	#5 Product Treatment Emiss. Pt. for Vac Jet	1970	*******	C711 and/or None
730HW	E730	Hotwell System	Nap	Nap	
732T	E732	Other Treatment	1970	*******	
717R1	E717	Recovery and Refining Systems 1	1970	*******	
717R2	E718	Recovery and Refining Systems 2	1970	*******	
L001	L001TT	Tank Truck Rack	Nap	Nap	
L002	L002RC	Rail Car Rack	Nap	Nap	
L003	L003DR	Containers	Nap	Nap	
C709	E709 and/or E730	#1 Jets/Condenser	Nap	Nap	
C710	E710 and/or E730	#2 Jets/Condenser	Nap	Nap	
C711	E711 and/or E730	#5 Jets/Condenser	Nap	Nap	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
Misc Drop Tanks	E703A - Virtual Emission Point for #1 Reactor Drop Tanks	R27 CO Process Id. E703A	Nap	Nap	
Misc Drop Tanks	E704A - Virtual Emission Point for #2 Reactor Drop Tanks	R27 CO Process Id. E704A	Nap	Nap	
Misc Drop Tanks	E705A - Virtual Emission Point for #4 Reactor Drop Tanks	R27 CO Process Id. E705A	Nap	Nap	
Misc Drop Tanks	E706A - Virtual Emission Point for #5 Reactor Drop Tanks	R27 CO Process Id. E706A	Nap	Nap	
Misc Drop Tanks	E707A - Virtual Emission Point for #7 Reactor Drop Tanks	R27 CO Process Id. E707A	Nap	Nap	
Misc Drop Tanks	E708A - Virtual Emission Point for #6 Reactor Drop Tanks	R27 CO Process Id. E708A	Nap	Nap	
Product Treatment 1, 2, 5, and/or Other Treatment	E703B - Virtual Emission Point for #1 Reactor Product Treatment	R27 CO Process Id. E703B Virtual because can treat products from reactor 1 in treater 2 or 5	Nap	Nap	
Product Treatment 1, 2, 5, and/or Other Treatment	E704B- Virtual Emission Point for #2 Reactor Product Treatment	R27 CO Process Id. E704B	Nap	Nap	
Product Treatment 1, 2, 5, and/or Other Treatment	E705B- Virtual Emission Point for #4 Reactor Product Treatment	R27 CO Process Id. E705B	Nap	Nap	
Product Treatment 1, 2, 5, and/or Other Treatment	E706B- Virtual Emission Point for #5 Reactor Product Treatment	R27 CO Process Id. E706B	Nap	Nap	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
Product Treatment 1, 2, 5, and/or Other Treatment	E707B- Virtual Emission Point for #7 Reactor Product Treatment	R27 CO Process Id. E707B	Nap	Nap	
Product Treatment 1, 2, 5, and/or Other Treatment	E708B- Virtual Emission Point for #6 Reactor Product Treatment	R27 CO Process Id. E708B	Nap	Nap	
Chemical Mixing					
2001	2001E	Tank 2001	1962	********	
2003	2003E	Tank 2003	1962	********	
2005	2005E	Tank 2005	1962	********	
2006	2006E	Tank 2006	1962	********	
2007	2007E	Tank 2007	1962	********	
2008	2008E	Tank 2008	1945	********	
2009	2009E	Tank 2009	1962	********	
2010	2010E	Tank 2010	1968	********	
2011	2011E	Tank 2011	1962	********	
2012	2012E	Tank 2012	1962	********	
2014	2014E	Tank 2014	1962	********	
2016	2016E	Tank 2016	1962	********	
2017	2017E	Tank 2017	1956	********	
2018	2018E	Tank 2018	1956	********	
2019	2019E	Tank 2019	1953	********	
2020	2020E	Tank 2020	1953	********	
2040	2040E	Tank 2040	1962	********	
2041	2041E	Tank 2041	1962	********	
2042	2042E	Tank 2042	1962	********	
2043	2043E	Tank 2043	1962	********	
2044	2044E	Tank 2044	1962	********	
2045	2045E	Tank 2045	1962	********	
2046	2046E	Tank 2046	1962	********	
2047	2047E	Tank 2047	1962	********	
2048	2048E	Tank 2048	1962	********	
2049	2049E	Tank 2049	1962	********	
2050	2050E	Tank 2050	1966	********	
2051A	2051AE	Tank 2051A	1967	********	
2051B	2051BE	Tank 2051B	1967	********	
2052	2052E	Tank 2052	1962	********	
2053	2053E	Tank 2053	1962	********	
2054	2054E	Tank 2054	1962	********	
2055	2055E	Tank 2055	1962	********	
2056	2056E	Tank 2056	1962	********	
2057	2057E	Tank 2057	1962	********	
2058	2058E	Tank 2058	1962	********	
2059	2059E	Tank 2059	1962	********	
2060	2060E	Tank 2060	1962	********	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
2061	2061E	Tank 2061	1975	********	
2062	2062E	Tank 2062	1962	********	
2063	2063E	Tank 2063	1962	********	
2064	2064E	Tank 2064	1962	********	
2065	2065E	Tank 2065	1962	********	
2066	2066E	Tank 2066	1962	********	
4690	4690E	Tank 4690	1967	********	
4691	4691E	Tank 4691	1967	********	
5766	5766E	Tank 5766	1962	********	
9000	9000E	Tank 9000 located at NCDT	1956	********	
SL-01	SL-01E	Vessel SL-01/ confidential	Nap	Nap	
SL-02	SL-02E	Vessel SL-02/ confidential	Nap	Nap	
SL-03	SL-03E	Vessel SL-03/ confidential	Nap	Nap	
D-104	D-104E	Vessel D-104E/ confidential	Nap	Nap	
L050TT	TT050L	In Unit Tank Truck Rack	Nap	Nap	
L050RC	RC050L	In Unit Rail Car Rack	Nap	Nap	
L050DR	DR050L	In Unit Drum Loading	Nap	Nap	
L800TT	TT800L	Morgan Tank Truck Rack	Nap	Nap	
L050RC	RC050L	Morgan Rail Car Rack	Nap	Nap	
Specialty Surfactants (TRITON)					
8101	E-1081-2	Vessel 8101/**********	1977	********	
8310	E-1081-3	Tank 8310	1992	********	C8110
8313	T8313	Tank 8313	1959	********	
8314	T8314	Tank 8314	1959	********	
8320	T8320	Tank 8320	1959	********	
8321	T8321	Tank 8321	1944	********	
8322	T-8722	Tank 8322	1944	********	
8323	T-8723	Tank 8323	1959	********	
8324	T-8724	Tank 8324	1959	********	
8330	E-1081-3	Tank 8330	1976	********	C8110
8331	T8331	Tank 8331	1976	********	
8332	T8332	Tank 8332	1976	********	
8333	T8333	Tank 8333	1959	********	
8334	T8334	Tank 8334	1959	********	
8340	E-1081-3	Tank 8340	1944	********	C8110
8341	T8341	Tank 8341	1944	********	
8343	T8343	Tank 8343	1959	********	
8344	T8344	Tank 8344	1959	********	
8345	T8345	Tank 8345	1959	********	
8346	T8346	Tank 8346	1959	********	
8350	T8350	Tank 8350	1944	********	
8351	T8351	Tank 8351	1944	********	
8352	T8352	Tank 8352	1945	********	
8353	E-1081-3	Tank 8353	1959	********	C8130
8354	T8354	Tank 8354	1959	********	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
8355	T8355	Tank 8355	1959	********	
8356	T8356	Tank 8356	1959	********	
8360	T8360	Tank 8360	1962	********	
8361	T8361	Tank 8361	1944	********	
8362	T8362	Tank 8362	1942	********	
8363	E-1081-3	Tank 8363	1959	********	C8130
8364	T8364	Tank 8364	1959	********	
8365	T8365	Tank 8365	1959	********	
8366	T8366	Tank 8366	1959	********	
8370	E-1081-3	Tank 8370	1975	********	
8371	T8371	Tank 8371	1976	********	
8372	T8372	Tank 8372 (sulfuric acid)	1948	********	
8373	T8373	Tank 8373	1952	********	
8375	T8375	Tank 8375	1959	********	
8376	T8376	Tank 8376	1959	********	
8380	T8380	Tank 8380	1976	********	
8381	T8381	Tank 8381	1976	********	
8382	T8382	Tank 8382	1993	********	
8383	T8383	Tank 8383	1952	********	
8390	T8390	Tank 8390	1976	********	
8391	T8391	Tank 8391	1976	********	
8392	T8392	Tank 8392	1977	********	
8393	T8393	Tank 8393	1952	********	
8400	E-1084-1 or E-1084-2 or E-1081-3	8400 Reactor	1976	********	C8110 or none
8420	T8420	Tank 8420	1976	********	
8433	T8433	Tank 8433 (Phosphoric Acid)	1993	********	
8435	T8345	Tank 8345	1993	********	
8500	E-1085-1 or E-1085-2 or E-1081-3	8500 Reactor	1976	********	C8110 or C8130 or none
8517	T-8517	Tank 8517	1976	********	
8518	None	Vessel 8518	1993	********	
8520	T-8520	Tank 8520	1993	********	
8528	E-1081-3	Tank 8528	1975	********	C8110
8540	E-1081-3	Tank 8540	1994	********	C8110
8600	E-1081-3 or E-1084-2 or E-1086-1	8600 Reactor	1976	********	C8130 or none
8617	E-1081-3 or E-1084-2 or E-1086-3	8617 Reactor	1976	********	C8130 or none
8621	T8621	Tank 8621	1976	********	
8706	T-8706	Tank 8706	1993	********	
8709	T-8709	Tank 8709	1993	********	
8721	T-8721	Tank 8721	1993	********	
8723	T-8723	Tank 8723	1993	********	
8725	T-8721	Tank 8725	1993	********	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
8101	E-1081-2	Vessel 8101/**********	1977	********	
8310	E-1081-3	Tank 8310	1992	********	C8110
8313	T8313	Tank 8313	1959	********	
8314	T8314	Tank 8314	1959	********	
8320	T8320	Tank 8320	1959	********	
8321	T8321	Tank 8321	1944	********	
8322	T-8722	Tank 8322	1944	********	
8323	T-8723	Tank 8323	1959	********	
8324	T-8724	Tank 8324	1959	********	
8330	E-1081-3	Tank 8330	1976	********	C8110
8331	T8331	Tank 8331	1976	********	
8729	T-8729	Tank 8729 - No Regulated Pollutant	1993	********	
8800	E-1088-1 or E-1084-2 or E-1081-3	8800 Reactor	1976	********	
8817	T-8817	Tank 8817	1976	********	
8820	None	West Filter Press	1993	********	
8835	T-8835	Tank 8835	1993	********	
	Fugitive	Funnel for Tank 8835	Not applicable	Nap	
C-1087-1	E-1087-1	Baghouse	Not applicable	Nap	
C8110	E-1081-3	Caustic Scrubber	1976	Nap	C8130
C8130	E-1081-3	Water Scrubber	1976	Nap	
8636	E-1086-7	Glycol System C-8636	1975	Nap	
D8415	E1084-2	Triad Hotwell	Not applicable	Nap	
D8515	E-1085-2	LCAP Hotwell	Not applicable	Nap	
L1001	L1001	Loading Rack L1001	Not applicable	Nap	
L1002	L1002	Loading Rack L1002	Not applicable	Nap	
L1003	L1003	Loading Rack L1003	Not applicable	Nap	
L1004	L1004	Loading Rack L1004	Not applicable	Nap	
L1005	L1005	Loading Rack L1005	Not applicable	Nap	
8629	T-8629	Tank 8629	Not applicable	Nap	
	Fugitive	Hopper for Tank 8629	Not applicable	Nap	
8701	E-1087-1	Tank 8701	1993	Nap	C-1087-1
8729	E-1087-5	Tank 8729 – No Regulated Pollutant	Not applicable	Nap	
8738	T-3738	Tank 8738	Not applicable	Nap	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
	Fugitive	Process Funnel for Tank 8738	Not applicable	Nap	
T8825	Vent Return to Process	Tank 8825	Not applicable	Nap	
	Fugitive	Hopper for Tank 8826	Not applicable	Nap	
E-8105	E-1081-2	Condenser	Not Applicable	Nap	
* Equipment was placed in Specialty Surfactants Plant service following issuance of permit R13-1517					
Water Treatment & Laboratory					
T01	T01E	Tank 01 (Sulfuric Acid)	Nap	Nap	
T02	Not applicable	Tank 2702 – No regulated pollutants (Water Treatment Additive)	Nap	Nap	
T04	Not applicable	T04 – No regulated pollutants (50% Caustic)	Nap	Nap	
T06	Nap	T06 – No regulated pollutants (25% Caustic)	Nap	Nap	
T2702	Nap	Tank 2702 - No regulated pollutants (Water Treatment Additive)	Nap	Nap	
T5715	T891047E	Tank 5715 (liquid alum)	Nap	Nap	
T891047	Nap	Tank 891047 - No regulated pollutants (Water Treatment Additive)	Nap	Nap	
T891048	Nap	Tank 891048 - No regulated pollutants (Water Treatment Additive)	Nap	Nap	
T891049	Nap	Tank 891049 - No regulated pollutants (Water Treatment Additive)	Nap	Nap	
T891050	Nap	Tank 891050 No regulated pollutants (Water Treatment Additive)	Nap	Nap	
Nap	Nap	Salt Brine Tank – No regulated pollutant	Nap	Nap	
Nap	Nap	Salt Brine Dissolver – No regulated pollutants	Nap	Nap	
Nap	Nap	Demineralizer Beds – No regulated pollutants	Nap	Nap	
Nap	Nap	Softeners – No regulated pollutants	Nap	Nap	
Nap	Nap	Accelerators/Clarifiers – No regulated pollutants	Nap	Nap	
Nap	Nap	Plant Laboratory	Nap	Nap	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
Maintenance / Paint Shop & North Charleston Distribution (NCDT)					
9000	T9000 or 9000E	Tank 9000 *********	1956	*********	
9001	T9001	Tank 9001	1960	*********	
9002	T9002	Tank 9002 – No Regulated Pollutants *********	1960	*********	
9003	T9003	Tank 9003	1960	*********	
9004	T9004	Tank 9004 **********	1960	*********	
9005	T9005	Tank 9005	1945	*********	
9006	T9006	Tank 9006	1945	*********	
9007	T9007	Tank 9007	1964	*********	
9008	T9008	Tank 9008	1964	*********	
9010	T9010	Tank 9010	1962	*********	
9011	T9011	Tank 9011 **********	1960	*********	
9012	T9012	Tank 9012 – No Regulated Pollutants *********	1960	*********	
9014	T9014	Tank 9014	1960	*********	
9015	T9015	Tank 9015 **********	1960	*********	
9019	T9019	Tank 9019	1969	*********	
9020	T9020	Tank 9020	1964	*********	
9021	T9021	Tank 9021	1961	*********	
9022	T9022	Tank 9022	1961	*********	
9023	T9023	Tank 9023	1961	*********	
9024	T9024	Tank 9024	1961	*********	
9025	T9025	Tank 9025	1964	*********	
9026	T9026	Tank 9026	1964	*********	
9030	T9030	Tank 9030	1966	*********	
9031	T9031	Tank 9031	1962	*********	
9033	T9033	Tank 9033	1961	*********	
9034	T9034	Tank 9034	1964	*********	
9040	T9040	Tank 9040	1966	*********	
9041	T9041	Tank 9041	1990	*********	
9060	T9060	Tank 9060	1967	*********	
9206	T9206	Tank 9206	1959	*********	
9207	T9207	Tank 9207 **********	1955	*********	
9209	T9209	Tank 9209	1963	*********	
9210	T9210	Tank 9210	1952	*********	
9211	T9211	Tank 9211	1952	*********	
9213	T9213	Tank 9213	1966	*********	
9999	T9999	Tank 9999	1964	*********	
9099	T9099	Tank 9099	1927	********	
L031TTR1	ELO31TTR1	Tank Truck Rack 1	Nap	Nap	
L031TTR2	ELO31TTR2	Tank Truck Rack 2	Nap	Nap	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
L031TTR3	ELO31TTR3	Tank Truck Rack 3	Nap	Nap	
L031RC1	ELO31RC1	Rail Car Rack 1	Nap	Nap	
L031RC2	ELO31RC2	Rail Car Rack 2	Nap	Nap	
LU031BG	ELU031BG	Barge Loading/Unloading	Nap	Nap	
T-1490	E012	Gasoline Storage Tank	1974	*********	
T-2206	E014	Diesel Storage Tank	1974	*********	
B-307 Paint Booths	Nap	Building 307 Paint Booths for Small Parts	Nap	Nap	
B-307 Weld Shop	Nap	Building 307 Welding Shop	Nap	Nap	
B-463 Carpentry Shop	Nap	Building 463 Carpentry Shop	Nap	Nap	
Metal Solvent Cleaning Baths	Nap	Building 307 and miscellaneous locations	Nap	Nap	
Nap	Nap	EO Distribution Header	Nap	Nap	
Middle/Upper Island Tanks					
The following tanks contain material left over from process shutdowns. After the tanks are emptied, they will be cleaned and placed "out-of-service".					
6716	T-6716	Tank 6716	Prior to 1984	> 10,000 gallons	
6720	T-6720	Tank 6720	Prior to 1984	> 10,000 gallons	
6732	T-6732	Tank 6732	Prior to 1984	> 10,000 gallons	
6735	T-6735	Tank 6735	Prior to 1984	> 10,000 gallons	
6745	T-6745	Tank 6745	Prior to 1984	> 10,000 gallons	
6751	T-6751	Tank 6751	Prior to 1984	> 10,000 gallons	
6763	T-6763	Tank 6763	Prior to 1984	> 10,000 gallons	
6764	T-6764	Tank 6764	Prior to 1984	> 10,000 gallons	
6767	T-6767	Tank 6767	Prior to 1984	> 10,000 gallons	
6770	T-6770	Tank 6770	Prior to 1984	> 10,000 gallons	

2.0 General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NSPS**	New Source Performance Standards
CBI	Confidential Business Information	**PM**	Particulate Matter
CEM	Continuous Emission Monitor	**PM_{10}**	Particulate Matter less than 10μm in diameter
CES	Certified Emission Statement	**pph**	Pounds per Hour
C.F.R. *or* CFR	Code of Federal Regulations	**ppm**	Parts per Million
CO	Carbon Monoxide	**PSD**	Prevention of Significant Deterioration
C.S.R. *or* CSR	Codes of State Rules	**psi**	Pounds per Square Inch
DAQ	Division of Air Quality	**SIC**	Standard Industrial Classification
DEP	Department of Environmental Protection	**SIP**	State Implementation Plan
FOIA	Freedom of Information Act	**SO_2**	Sulfur Dioxide
HAP	Hazardous Air Pollutant	**TAP**	Toxic Air Pollutant
HON	Hazardous Organic NESHAP	**TPY**	Tons per Year
HP	Horsepower	**TRS**	Total Reduced Sulfur
lbs/hr *or* lb/hr	Pounds per Hour	**TSP**	Total Suspended Particulate
LDAR	Leak Detection and Repair	**USEPA**	United States Environmental Protection Agency
M	Thousand	**UTM**	Universal Transverse Mercator
MACT	Maximum Achievable Control Technology	**VEE**	Visual Emissions Evaluation
MM	Million	**VOC**	Volatile Organic Compounds
MMBtu/hr *or* mmbtu/hr	Million British Thermal Units per Hour		
MMCF/hr *or* mmcf/hr	Million Cubic Feet Burned per Hour		
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		
NO_x	Nitrogen Oxides		

2.3. Permit Expiration and Renewal

2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]

2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]

2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]

2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

2.5.1. This permit shall be reopened and revised under any of the following circumstances:

a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.

b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.

c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

a. The change must meet all applicable requirements and may not violate any existing permit term or condition.

b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield.

d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.
[45CSR§30-5.8]

2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.
[45CSR§30-5.8.a.]

2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or

b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.

b. The permit shield shall extend to all terms and conditions under each such operating scenario; and

c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution Control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times, substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:

a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.
[45CSR§30-5.1.f.2.]

2.17. Emergency

2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
[45CSR§30-5.7.a.]

2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.
[45CSR§30-5.7.b.]

2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
[45CSR§30-5.7.d.]

2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.
[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.
[45CSR§30-5.2.a.]

2.18.2. Those provisions specifically designated in the permit as “State-enforceable only” shall become “Federally-enforceable” requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40CFRPart 2.
[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.
[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically

identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof. **[45CSR§30-5.6.a.]**

2.21.2. Nothing in this permit shall alter or affect the following:

a. The liability of The owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or

b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.

c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding. **[45CSR§30-5.3.e.3.B. and 45CSR38]**

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect. **[45CSR§30-5.1.e.]**

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege. **[45CSR§30-5.1.f.4]**

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.
[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos**. The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40CFR§ 61.145, 40CFR§ 61.148, and 40CFR§ 61.150. The permittee or owner or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40CFR§ 61.145(b)(3)(i). A copy of this notice should be sent to the USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health.
[40CFR61 and 45CSR15]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]

3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2]

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]

3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40CFRPart 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40CFR§§ 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40CFR§ 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40CFR§ 82.161.

[40CFR82, Subpart F]

3.1.8. **Risk Management Plan.** This stationary source, as defined in 40CFR§ 68.3, is subject to Part 68. This stationary source shall submit a risk management plan (RMP) by the date specified in 40CFRPart 68.10. This stationary source shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40CFRPart 70 or 71.
[40CFR68]

3.1.9. **NO_X Budget Trading Program.** The permittee shall comply with the standard requirements set forth in the attached NO_X Budget Permit Application (see Appendix A) and the NO_X Budget Permit requirements set forth in 45CSR1 for each NO_X budget source. The complete NO_X Budget Permit Application shall be the NO_X Budget Permit portion of the Title V permit administered in accordance with 45CSR30.
[45CSR§§1-6.1.b. and 20.1.]

a. The NO_X Budget portion of this permit is deemed to incorporate automatically the definitions of terms under 45CSR§1-2 and, upon recordation by the Administrator under 45CSR§1-50 through 45CSR§1-57, 45CSR§1-60 through 45CSR§1-62 or 45CSR§1-80 through 45CSR§88, every allocation, transfer or deduction of a NO_X allowance to or from the compliance accounts of the NO_X Budget units covered by the permit or the overdraft account of the NO_X budget source covered by the permit.
[45CSR§1-23.2.]

b. Except as provided in 45CSR§1-23.2, the Director will revise the NO_X Budget portion of this permit, as necessary, in accordance with the operating permit revision requirements set forth in 45CSR30.
[45CSR§1-24.1.]

3.1.10. **CAIR NO_x Ozone Season Trading Program.** The permittee shall ~~submit and~~ comply with the standard requirements set forth in the attached CAIR Permit Application (see Appendix B) and the CAIR permit requirements set forth in 45CSR40 for each CAIR NO_x Ozone Season source. The complete CAIR Permit Application shall be the CAIR Permit portion of the Title V permit administered in accordance with 45CSR30. [**45CSR§§40-6.1.b. and 20.1.]**

a. The CAIR Permit portion of this permit is deemed to incorporate automatically the definitions of terms under 45CSR§40-2 and, upon recordation by the Administrator under sections 51 through 57, or 60 through 62 of 45CSR40, every allocation, transfer, or deduction of a CAIR NO_x Ozone Season allowance to or from the compliance account of the CAIR NO_x Ozone Season source covered by the permit.
[45CSR§40-23.2.]

b. Except as provided in 45CSR§40-23.2, the Secretary will revise the CAIR Permit portion of this permit, as necessary, in accordance with the operating permit revision requirements set forth in 45CSR30.
[45CSR§40-24.1.]

3.2. Monitoring Requirements

3.2.1. N/A

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40CFRParts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

[WV Code § 22-5-4(a)(15) and 45CSR13]

3.4. Recordkeeping Requirements

3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;
b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;
d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A.]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
[45CSR§30-5.1.c.2.B.]

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§30-5.1.c. State-Enforceable only.]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§§30-4.4. *and* 5.1.c.3.D.]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]

3.5.3. All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:

Associate Director
Office of Enforcement and Permits Review (3AP12)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.
[45CSR§30-5.1.c.3.A.]

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.
[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.
[45CSR§30-4.3.h.1.B.]

3.6. Compliance Plan

3.6.1. N/A

3.7. Permit Shield

3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

~~45CSR2A~~	~~Per §45-2-11, natural gas fired Vessel 7900 (Furnace #5) at the Vinyl Methyl Ether Plant is exempt from weight emission standards, control of fugitive particulate matter, registration, testing, monitoring, recordkeeping and reporting and startup, shutdown and malfunction provisions of Regulation 2 because the design heat input is less than 10 million Btus/hr.~~
45CSR5	Coal Handling Facilities Exemption due to 45CSR2 applicability
45CSR7	Sulfuric acid mist/vapours and Phosphoric Acid vapours Tanks used to store sulfuric acid or phosphoric acid from concentration limits. Per Section 10.6 of Regulation 7, sources with potential to emit less than 0.1 lbs/hr, 100 lbs/yr are exempt from the concentration limits of Section 4.2. The following tanks have been found to meet this criteria: Tank 9750 is used to store sulphuric acid at the Oxide Adducts Plant. Tank 8372 is used to store sulfuric acid at the Specialty Surfactants Plant. Tank 8433 is used to store phosphoric acid at the Specialty Surfactants Plant. Tank T01 is used to store sulfuric acid at the Water Treatment Plant.
45CSR7	The carpentry shops (B463) and welding shops (B307) are used for fabrication of materials to support site operations. These activities are incidental (support) operations to the South Charleston Facility and are not manufacturing processes. Carpentry and welding shop activities are not covered by 45CSR7.

45CSR10A 45CSR10	Testing, Monitoring, Record Keeping, and Reporting Requirements under 45CSR10 are not applicable to Boilers 26 and 27 and Furnace #5since they only combusts natural gas. 45CSR§10-10.3 Boilers 25 and 27 are also exempt from the 2000 ppm SO2 requirements of 45CSR§10-4 due to 45CSRδ10-4.1.e having a potential of less than 500 lbs/yr SO2 from any manufacturing processes venting to these boilers. Additionally 45CSR§10-5 for combustion of refinery or process gases containing hydrogen sulfide in excess of 50 grains/100 ft^3 due to process gas streams having no know potential for sulfur contamination.
40CFR60, Subpart Kb	~~Except for T-571 (associated with the Alkyl Alkanol Amines Plant), which complies with 40CFR§60.112b(a)(3)(i), and 1509A, 1509B, 1510A, 1510B, 1511A and 1511B (associated with the Alkyl Alkanol Amines Plant) which are subject only to the NSPS monitoring requirements of 40CFR§60.116b(b). All other tanks in VOL service meet the criteria specified within the non-applicability section criteria listed below.~~ ~~1) Were built before July 23, 1984, and no physical modifications or reconstructions were performed since July 23, 1984 and/or~~ ~~2) Are of capacity less than 19,813 gallons and/or~~ ~~3) Are of a capacity greater than 39,890 gallons, and have a maximum true vapor pressure of 0.51 psia or less.~~ ~~4) Are of a capacity between 19,818 gallons and 39,890 gallons and have a maximum true vapor pressure of 2.2 psia or less.~~ The following tanks associated with the Oxide Adducts Plant are greater than or equal to 19,813 gallons but less than 39,890 gallons and were constructed or modified after July 23, 1984 and have a maximum true vapor pressure less than 2.2 psia: 9513. The following tanks associated with the Oxide Adducts Plant are greater than or equal to 39,890 gallons and were constructed or modified after July 23, 1984 and have a maximum true vapor pressure less than 0.51 psia: 9510, 9511, and 9512. All tanks over 19,813 gallon capacity located at the Specialty Surfactants Plant store materials with < 2.2 psia vapor pressure at storage conditions.
40CFR60, Subpart Y	NSPS for coal handling facilities have not been modified or reconstructed after the effected date of Subpart Y that resulted in an increase of particulate air emissions

40CFR63, Subpart Y	- NESHAP for Marine Vessel Loading Operations. The North Charleston Distribution Terminal is exempt from Subpart Y requirements because annual hazardous air pollutant (HAP) emissions are less than 10 tons per year of any individual HAP and less than 25 tons per year of total HAPs in aggregate.
40CFR63, Subpart JJ	Wood Furniture Surface Coating. The South Charleston Facility is an incidental manufacturer and exempt from Subpart JJ. Less than 100 gallons per month surface coating and adhesive is used for wood furniture.
40CFR63, Subpart EEE	The permittee will discontinue burning of hazardous waste in Boiler 25 prior to the compliance date of Subpart EEE for industrial boilers. Therefore Subpart EEE does not apply.
40CFR63, Subpart EEEE	The North Charleston Distribution Terminal (NCDT) and the Chemical Mixing Unit are exempt from the OLD MACT for one or more of the following reasons: Storage vessels located at NCDT are part of processing units covered by other MACTs, or streams (materials transferred) have annual average true vapor pressure of Subpart EEEE Table 1 OHAPs at 77°F less than 0.1 psia, or streams contain less than 5% by weight of Subpart EEEE Table 1 OHAPS and are not organic liquids subject to the OLD MACT. The EO distribution header system does not meet the definition of an OLD MACT affected source as defined in 40 C.F.R. 63.2338(b) and is therefore not covered by 40 C.F.R. 63, Subpart EEEE The AAA Plant is not subject to OLD MACT control requirements. The AAA Plant is covered by 40CFR63, Subparts G, H, and I - NESHAP for Synthetic Organic Chemical Manufacturing (HON MACT). The Specialty Surfactants Plant is not subject to the OLD MACT. The Specialty Surfactants Plant is covered by the Polyether Polyol and Miscellaneous Organic Chemical Manufacturing MACT. Annual average vapor pressure of Table 1 OHAP at 77°F used as heat transfer liquid is less than 0.1 psia, or no streams containing greater than or equal to 5% by weight Table 1 OHAPS. The ~~Vinyl Methyl Ether Plant and~~ Gum Base Plant (previously known as Polyvinyl Acetate) ~~will be~~ is covered by the MON MACT. Annual average vapor pressure of Table 1 OHAP at 77°F used as heat transfer liquid is less than 0.1 psia.
40CFR63, Subpart MMMM	Coating of Metal Parts. The South Charleston Facility is an incidental manufacturer and exempt from Subpart MMMM. Less than 250 gallons per month of paints/solvents is used.
40CFR63, Subpart DDDDD	Boilers 26 and 27 are exempt from the requirements of this NESHAP with the exception of initial notification. The boilers are natural gas fired and were built prior to January 13, 2003.
40CFR63, Subpart ZZZZ	The stationary fossil fuel fired generators located at the South Charleston Facility are less than 500 bhp, are for emergency use and/or limited use (<100 hours/yr operation). The generators are exempt from 40CFR63, Subpart ZZZZ.

40CFR63, Subpart FFFF	The Triton unit has one reactor, which is subject to 40CFR63, Subpart PPP for polyethylene polyols production. As a result, reactor 8400 (Alkox Reactor) is exempt from the requirements of Subpart FFFF in accordance with §63.2435(b)(3).

4.0 Source-Specific Requirements [Energy Systems - Boiler Power House and Auxiliary Air Compressors, Emission Point ID(s) (25E, 26E, 27E, A-001, A-002, A-003, A-004)]

4.1. Limitations and Standards

4.1.1. The maximum allowable emissions from Boiler #26 through emission point 26E to the atmosphere are as follows:

Pollutant	Potential Emissions (pounds/hour)	Potential Emissions (tons/year)	Net Emissions Increase (tons/year) [1]
Carbon Monoxide (CO)	22.5	98.37	92.87
Oxides of Nitrogen (NO_x)	See Requirement 4.1.2	109.17	33.49
Particulate Matter (PM)	1.76	7.72	7.72
Sulfur Dioxide (SO_2)	0.21	0.91	0.83
Total Organic Compounds (TOC)	0.49	2.13	N/A

[1]The net emissions increase was used to determine the facility's applicability to PSD. By the process of netting, UCC is not affected by PSD regulations.

[45CSR13, Permit Number R13-2033B, Condition A.1., Emission Point ID (26E)]

4.1.2. The emission of NO_x to the atmosphere from the Boiler #26 (26s, 26 Boiler) shall not exceed 0.07 pounds per million Btu of heat input. NOx emissions data shall be calculated and maintained using the 30-day rolling average method.
Compliance with this limitation will demonstrate compliance with, 40CFR60, Subpart Db, Section 60.44(b) (0.20 lb NOx/ MM Btu).
[45CSR13, Permit Number R13-2033B, Condition A.2., Emission Point ID (26E)]

4.1.3. Boiler #26 (26s, 26 Boiler) shall fire only natural gas and shall not be operated in a manner to exceed 250,000 pounds of steam per hour or a maximum design heat input of 352×10^6 Btu per hour.
[45CSR13, Permit Number R13-2033B, Condition A.3., Emission Unit ID (#26 Boiler)]

4.1.4. Boiler #26 (26s, 26 Boiler) shall consume no more than 16,200 pounds of natural gas per hour or 3047.75×10^6 cubic feet per year.
[45CSR13, Permit Number R13-2033B, Condition A.4., Emission Unit ID (#26 Boiler)]

4.1.5. Boilers #25, 26, and 27 as well as auxiliary air compressors 001 through 004 shall be constructed and operated in accordance with information filed in Permit Application R13-2033, R13-2141A, B, and C, R13-2568, R13-2414A and any amendments thereto. The Director may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
[45CSR13, Permit Number R13-2033B, Condition C.3., R13-2141C, Condition C.3., R13-2568, Condition C.3., and R13-2414, Condition C.3., Emission Unit ID (#25 Boiler, #26 Boiler and #27 Boiler)]

4.1.6. Boiler #27 shall utilize natural gas as its fuel source, and shall be operated in a manner not to exceed the maximum design heat input of 353 million Btu per hour.
[45CSR13, Permit Number R13-2141C Condition A.1., Emission Unit ID (#27 Boiler)]

4.1.7. Boiler #27 shall not consume more than 353,000 cubic feet of natural gas per hour, or approximately 3,092 million cubic feet per year. Annual fuel consumption shall be based on a 12-month rolling yearly total. A rolling yearly total shall mean the total natural gas usage at any given time for the previous twelve (12) consecutive calendar months.
[45CSR13, Permit Number R13-2141C Condition A.2., Emission Unit (#27 Boiler)]

4.1.8. The process vent gases from the following plants may be drafted to Boiler #25 or #27 for the purpose of VOC reduction at a minimum control efficiency of 99 percent:

a. Union Carbide Corporation - Polyvinyl Acetate (aka Gum Base Plant)

b. Bayer Polymers, LLC - Propylene Oxide Filtering

[45CSR13, Permit Number R13-2141C, Condition A.3., and R13-2568, Condition A.5, Emission Unit ID (#25 Boiler and #27 Boiler)]

4.1.9. Reserved

4.1.10. The emission of NO_X to the atmosphere from Boiler #27 (No. 27 Boiler) shall be limited to 0.2 lbs NO_x per million Btu heat input, "high heat release," as set forth in 40 CFR 60 Subpart Db, Section 60.44(b). Compliance with the hourly emission limits shall be based on a 30-day rolling average in accordance to 40CFR60.46(b).
[45CSR13, Permit Number R13-2141C, Condition A.5., Emission Point ID (27E)]

4.1.11. The maximum allowable emissions to the atmosphere from the operation of the natural gas fired Boiler #27 (No. 27 Boiler, ID: 27e) shall be limited to those pollutants and associated rates shown in Table 4.1.12 of this permit.

Table 4.1.12.

	Emission Point ID - 27E	
Pollutant	**Hourly Limits (lbs/hr)**	**Annual Limits (tons/yr)**
CO	33.00	95.00
NO_X	70.60	309.00
SO_2	0.26	1.15
PM_{10}	5.00	14.50
VOC	30.00	29.50
Propylene Oxide	20.00	0.58
Hexane	1.25	2.75
Vinyl Acetate	0.11	0.46

[45CSR13, Permit Number R13-2141C, Condition A.6., Emission Point ID (27E)]

4.1.12. The pertinent sections of 45CSR2 applicable to this facility include, but are not limited to, the following:

§2-3.1.
No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.

§2-3.2.
For Boiler #25 compliance with the visible emission requirements of 45CSR§2-3.1 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of 45CSR§2-3.1. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.

§2-4.1.
No person shall cause, suffer, allow or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined as follows:

b. For Type 'b' fuel burning units, the product of 0.09 and the total design heat inputs for such units in million B.T.U.'s per hour, provided however that no more than six hundred (600) pounds per hour of particulate matter shall be discharged into the open air from all such units;

§2-4.4.
The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment efficiency shall be reviewed by the Director. No person shall cause, suffer, allow or permit the addition of sulfur oxides as described above unless written approval for such addition is provided by the Director.

§2-8.1. Testing.

a. Upon request of the Director, the owner or operator of a fuel burning unit(s) shall demonstrate compliance with of 45CSR§2-3 by periodic testing in accordance with 40 CFR Part 60, Appendix A, Method 9, or a certified continuous opacity monitoring system, as approved by the Director, and of 45CSR§2-4 by periodic particulate matter stack testing, conducted in accordance with the appropriate test method set forth in the Appendix to 45CSR2 or other equivalent EPA approved method approved by the Director.

b. At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s) may be required to conduct or have conducted tests to determine the compliance of such unit(s) with the emission limitations of 45CSR§2-4. Such tests shall be conducted in accordance with the appropriate method set forth in the Appendix to 45CSR2 or other equivalent EPA approved method approved by the Director. The Director, or his duly authorized representative, may at his option witness or conduct such tests. Should the Director exercise his option to conduct such tests, the operator will provide all necessary sampling connections and sampling ports located in such manner as the Director may require, power for test equipment, and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

    1. Sufficient information on temperatures, velocities, pressures, weights and dimensional values shall be reported to the Director, with such necessary commentary as he may require to allow an accurate evaluation of the reported test results and the conditions under which they were obtained.

c. The Director, or his duly authorized representative, may conduct such other tests as he may deem necessary to evaluate air pollution emissions other than those noted in of 45CSR§2-4.1.

§2-8.2. Monitoring.

a. To demonstrate compliance with 45CSR§2-3 the owner or operator of a fuel burning unit(s) shall conduct monitoring as set forth in an approved monitoring plan as provided in Section 4.2 of this permit for each emission unit. Such monitoring plan(s) shall include, but not be limited to, one or more of the following: continuous measurement of emissions, monitoring of emission control equipment, periodic parametric monitoring, or such other monitoring as specified in this permit.

§2-8.3. Recordkeeping and Reporting.

a. The owner or operator of a fuel burning unit(s) shall maintain on-site all records of monitored data established in the monitoring plan pursuant to of 45CSR§2-8.2.a. as provided by Section 4.3 of this permit.

b. The permittee shall submit a periodic exception report to the Director, as specified in Section 4.5 of this permit. Such exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan, and shall include, but not be limited to, the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion and the corrective action taken.

c. The permittee shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit as specified in Section 4.4 of this permit. Such records are to be maintained on-site and made available to the Director or his duly authorized representative upon request.

d. Where appropriate the owner or operator of a fuel burning unit(s) may maintain such records in electronic form.

§2-9.2.
At all times, including periods of start-ups, shutdowns and malfunctions, owners and operators shall, to the extent practicable, maintain and operate any fuel burning unit(s) including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, visible emission observations, review of operating and maintenance procedures and inspection of the source. Compliance with this provision shall be demonstrated by compliance with the testing, recordkeeping and reporting as specified by Section 4.2, 4.3, 4.4, and 4.5 of this permit.

[45CSR13, Permit Number R13-2033B, Condition B.1., R13-2141C, Condition B.1., and R13-2568, Condition B.1., Emission Point ID (25, 26E and 27E)

4.1.13. The permitted facility shall comply with all applicable requirements of 45CSR10, with the exception of any more stringent limitations set forth in 4.1.12., 4.1.18, or 4.1.21. The principle provisions of 45CSR10, applicable to the permitted facility, are:

§10-3.2.
No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:

§10-3.2.c.
For Type 'b' and Type 'c' fuel burning units, the product of 1.6 and the total design heat inputs for such units

discharging through those stacks in million BTU's per hour, provided however, that no more than 5,500 pounds per hour of sulfur dioxide shall be discharged into the open air from all such stacks.

§10-8.1.a.
At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s), manufacturing process source(s) or combustion source(s) may be required to conduct or have conducted tests to determine the compliance of such source(s) with the emission limitations of sections 3, 4, or 5 of 45CSR10. Such tests shall be conducted in accordance with the appropriate test method set forth in 40CFR Part 60, Appendix A, Method 6, Method 15, or equivalent EPA testing method approved by the Director.

§10.8.3.a.
The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) subject to sections 3, 4, or 5 of 45CSR10 shall maintain on-site a record of all required monitoring data as established in a monitoring plan pursuant to 45CSR§10-8.2.c as specified in Section 4.2, 4.3, and 4.4 of this permit
[45CSR13, Permit Number R13-2141C, Condition B.2., and R13-2568, Condition B.2., Emission Point ID (27E and 25E)]

4.1.14. Boiler #25 is designed to burn coal, natural gas, liquid residues, and process vent gases. Boiler #25 and shall be operated in a manner not to exceed the maximum design heat input of 323 million Btu per hour.
[45CSR13, Permit Number R13-2568, Condition A.1., Emission Point ID (25E)]

4.1.15. Boiler #25 shall not consume more than 12.9 tons of coal per hour based on a 24-hour average and a moisture content of 4%, or 113,000 tons per year. Annual fuel consumption shall be based on a 12-month rolling yearly total.
[45CSR13, Permit Number R13-2568, Condition A.2., Emission Unit ID (#25 Boiler)]

4.1.16. Boiler #25 shall not consume more than 323,000 cubic feet of natural gas per hour, or 2,830 million cubic feet per year. Annual fuel consumption shall be based on a 12-month rolling yearly total.
[45CSR13, Permit Number R13-2568, Condition A.3., Emission Unit ID (#25 Boiler)]

4.1.17. The sulfur content of the coal burned in Boiler #25 shall not exceed 1% concentration by weight.
[45CSR13, Permit Number R13-2568, Condition A.4., Emission Unit ID (#25 Boiler)]

4.1.18. Particulate matter (PM) and Lead emissions from Boiler #25 shall be controlled with an electrostatic precipitator, identified in permit application R13-2568 as C-25. The electrostatic precipitator shall be installed, operated and maintained so as to achieve a minimum 99.0 percent control efficiency of particulate matter and a 95.0 percent control efficiency of lead.
[45CSR13, Permit Number R13-2568, Condition A.7., Emission Point ID (25E)]

4.1.19. Particulate matter emissions released from emission point E-25 shall not exceed a maximum ten (10) percent opacity, except as otherwise provided by 45CSR2.
[45CSR13, Permit Number R13-2568, Condition A.8., Emission Point ID (25E)]

4.1.20. The maximum allowable emissions to the atmosphere from the operation of Boiler #25 through emission point E-25 shall be limited to those pollutants and associated rates shown in Table 4.1.21.of this permit.

Table 4.1.21. - Permitted Emissions

Pollutant	Control Device		Controlled Emissions	
	ID	Control Eff. (%)	Hourly (lbs/hr)	Annual (tons/yr)
CO	-	-	64.60	28.3
NO_X	-	-	246.00	1,076.0
SO_2	-	-	491.00	2,150.4
PM	C-25	99.00	16.80	73.6
VOC	-	-	28.90	6.60
Lead	C-25	95.00	0.03	0.20
Propylene Oxide	B-25	99.00	20.00	0.60
Hexane	-	-	1.15	2.50
Vinyl Acetate	-	-	0.11	0.46
Hydrofluoric Acid (HF)	-	-	2.91	8.50
Hydrochloric Acid (HCl)	-	-	83.80	367.2
Chlorine (Cl_2)	-	-	4.79	21.0
Other HAPs	-	-	0.22	0.50

[45CSR13, Permit Number R13-2568, Condition A.9., Emission Point ID (25E)]

4.1.21. Boiler #25 annual limits shall be based on a 12-month rolling total. A 12-month rolling total shall mean the total at any given time for the previous twelve (12) consecutive calendar months.
[45CSR13, Permit Number R13-2568, Condition A.10., Emission Point ID (25E)]

4.1.22. Maximum aggregate emissions to the atmosphere from Emission Point ID No. A-001, A-002, A-003, and A-004 shall not exceed the following hourly and annual limits:

Pollutant	Emissions (lb/hr)	Emissions (tpy)
Nitrogen Oxides	43.4	15.0
Carbon Monoxide	9.4	0.9
PM-10	3.1	0.3
Hydrocarbons	0.5	0.6

[45CSR13, Permit Number R13-2414A, Condition A.1., Emission Point ID (A-001, A-002, A-003, A-004)]

4.1.23. The permittee is limited to four (4) portable diesel auxiliary air compressors (designated as 001 through 004) on site for the purposes of maintaining adequate pressure and delivery volume in the Plant air header in the event that the normal electric driven compressors fail, require maintenance, or lose power supply.
[45CSR13, Permit Number R13-2414A, Condition A.2., Emission Unit ID (001, 002, 003, 004)]

4.1.24. The permittee shall implement a coal sampling and analysis plan that allows determination of heating value and ash content of coal as burned on a daily basis in Boiler #25. The permittee shall collect and analyze a representative coal sample from a dedicated storage pile prior to burning. This plan may be amended upon written notification to and approval by the Director.
[45CSR§2-8.2.a, Emission Unit ID (25E)]

4.1.25. Boiler #25 will be subject to 40 CFR 63, Subpart DDDDD, NESHAP for Indirect Heat Exchangers. The compliance date for Subpart DDDDD is September 13, 2007, unless otherwise granted an extension or amended by the Director or US EPA, or the rule is vacated. The permit must submit a modification permit application concurrent with the Notification of Compliance Status Report required by Subpart DDDDD or as otherwise provided by applicable rules.
[45CSR34, 40CFR63, Subpart DDDDD, Emission Unit ID (25E)]

4.1.26. Coal and ash handling activities associated with Boiler 25 are subject to the fugitive emission provisions of 45CSR§2-5. As a result the permittee shall minimize fugitive dust emissions via the following work practice standards:

The coal conveyance and crusher system shall be equipped with enclosures in accordance with good engineering practices.

Trucks hauling boiler ash out of the facility shall be covered.

Good housekeeping practices shall be utilized for coal stockpiling and boiler ash handling activities

[45CSR§2-5, 45CSR§30-12.7, Emission Unit ID (25E Boiler Coal and Ash Handling System)]

4.2. Monitoring Requirements

4.2.1. As a means of demonstrating compliance with the opacity limit for Boiler #25 as set forth by 4.1.20., the permittee shall install and maintain a Continuous Opacity Monitoring System in accordance with 40 CFR Part 60, Appendix B - Performance Specification 1, per 45CSR2A-6.2.c.
[45CSR13, Permit Number R13-2568, Condition B.10., Emission Point ID (25E)]

4.2.2. For Boilers #25, #26, and #27 the permittee shall maintain and operate a NOx continuous emission monitoring systems during ozone season. In accordance with 45CSR§1-70 NOx emissions during Ozone Season shall be monitored in accordance with 40CFR75, Subpart H.
[45CSR§1-70, Emission Point ID (25E, 26E, 27E)]

4.2.3. Boiler #26 and Boiler #27 are subject to 40 CFR 60, Subpart Db. The permittee shall comply with all applicable provisions contained in 40 CFR 60, specifically Subpart Db. As provided by 40CFR§60.48b(2) installation of a nitrogen oxides continuous emission monitoring system (CEMS), which meets the requirements of 40 CFR 75, Subpart H, also meets the requirements of Subpart Db, except that the permittee shall also meet the requirements of §60.49b. (Data reported to meet the requirements of §60.49b shall not include data substituted using the missing data procedures in subpart D of part 75 of chapter 40, nor shall the data have been bias adjusted according to the procedures of part 75.) All reports, requests, or notifications under Subpart Db shall be submitted as provided by Condition 3.5.3 of this permit.
[45CSR13, Permit Number R13-2033B, Condition B.3., and R13-2141C, Condition B.6., 40CFR§60.48b(2), Emission Point ID (26E and 27E)]

4.3. Testing Requirements

4.3.1. When requested by the Director to determining compliance with requirement 4.1.1, and 4.1.2 the permittee shall utilize test procedures in accordance with 40 CFR 60, Appendix A and Appendix B as appropriate for Boiler #26.
[45CSR13, Permit Number R13-2033B, Condition A.5., Emission Point ID (26E)]

4.3.2. As a means of demonstrating compliance with the sulfur dioxide emission limits for Boiler #25 as set forth 4.1.20., the permittee shall conduct weight emission tests on a five (5) year schedule in accordance with 40 CFR Part 60, Appendix A, Method 6 or other equivalent EPA testing method approved by the Secretary.
[45CSR13, Permit Number R13-2568, Condition B.8., Emission Point ID (25E)]

4.3.3. As a means of demonstrating compliance with the particulate matter emission limits for Boiler #25 as set forth by 4.1.20., the permittee shall conduct or have conducted, weight emission tests on a three (3) year schedule to determine the compliance of each fuel stack with the weight emission standards set forth in section 4 of 45CSR2. Weight emission tests shall be conducted in accordance with 45CSR2 Appendix "Compliance Test Procedures for 45CSR2" or other equivalent EPA approved method approved by the Director.
[45CSR13, Permit Number R13-2568, Condition B.9., Emission Point ID (25E)]

4.3.4. The permittee must conduct performance demonstrations for nitrogen oxides continuous emission monitoring system in accordance with Regulation 1 (40CFR75, Subpart H for Boilers #25, 26, and 27). The demonstrations conducted in accordance with Regulation 1 may be used for the performance demonstrations as required by 40CFR60, Subpart Db for Boilers #26 and #27.
[45CSR1, Emission Point IDs (25E, 26E, and 27E)]

4.4. Recordkeeping Requirements

4.4.1. The permittee shall maintain accurate records of the amount of natural gas consumed in Boiler #27 on a monthly and yearly basis using the sample record keeping format, or equivalent, as supplied within Attachment A of permit number R13-2141C, also included herein as Attachment A
[45CSR13, Permit Number R13-2141C, Condition B.5., Emission Unit ID (#27 Boiler)]

4.4.2. The permittee shall maintain an accurate record of the natural gas consumed in Boiler #26 (26s, 26 Boiler), according to the recordkeeping form supplied within Appendix A of permit number R13-2033B, included herein as Attachment B.
[45CSR13, Permit Number R13-2033B, Condition A.6., Emission Unit ID (#26 Boiler)]

4.4.3. For the purpose of determining compliance with the operating limits set forth in 4.1.15., 4.1.16., and 4.1.17 as well as the emission limits set forth in 4.1.21., the permittee shall keep daily records of the amount of natural gas, coal, and liquid residues combusted in Boiler # 25.
[45CSR13, Permit Number R13-2568, Condition B.5., and B.6., Emission Point ID (25E)]

4.4.4. For the purpose of determining compliance with the sulfur concentration limits set forth in 4.1.17, and the sulfur related emission limits set forth in 4.1.20, the permittee shall maintain daily records of the sulfur content of the coal combusted in Boiler #25. Coal samples must be collected and analyzed per the same schedules as heating value and ash content per Condition 4.1.24.
[45CSR13, Permit Number R13-2568, Condition B.7., 45CSR§30-12.7., Emission Point ID (25E)]

4.4.5. Manufacturer's specification sheets shall be kept on file for the portable diesel auxiliary air compressors (designated as equipment IDs. 001 through 004 of this permit) on site.
[45CSR13, Permit Number R13-2414A, Condition A.3., Emission Unit ID (001, 002, 003, 004)]

4.4.6. The permittee shall maintain accurate records of the hours of operation for each portable auxiliary air compressor (designated as equipment IDs. 001 through 004 of this permit). Within fifteen (15) days after the end of the calendar month, the Production Leader or EHS Delivery Leader shall initial and date each monthly record attesting to the accuracy and completeness of the data recorded.
[45CSR13, Permit Number R13-2414A, Condition A.4., Emission Unit ID (001, 002, 003, 004)]

4.4.7. The permittee must maintain a record of the F-factor, and supporting calculations, used in the calculation of Boiler #25 and Boiler #27 nitrogen oxide emissions and heat input for the CAIR NOx Ozone Season Trading Program (45CSR40). No further petitions under 40 CFR§75.66 are necessary for these F-factor calculations provided that the permittee continues to use the same F-factor calculation methodology for vent gases that was approved by EPA.
[45CSR40, Emission Unit ID (25E, 27E)]

4.5. Reporting Requirements

4.5.1. The permittee shall submit to the Director quarterly reports for Boiler #25 continuous opacity monitoring in a form and manner as specified by the Director.
[45CSR2, 45CSR2A, Emission Point ID (25E)]

4.5.2. The permittee shall submit notification and reports as required by 45CSR1 and/or 45CSR40, as appropriate. (40CFR75, Subpart H)
[45CSR1, Emission Point ID (25E, 26E, and 27E)]

4.5.3. The permittee shall submit semi-annual reports of nitrogen oxide emissions for Boilers 26 and #27 as required by 40 CFR 60, Subpart Db
[45CSR13, Permit Number R13-2033B, Condition B.2., 40CFR60, Subpart Db., Emission Point ID (26E, 27E)]

4.5.4. The permittee shall submit reports of excess particulate matter emissions as provided by Section 9.3 of Regulation 2 (45CSR§2-9.3)
[45CSR§2-9.3., Emission Point ID (25E)]

4.5.5. If, at any time in the future, the permittee should discontinue the use of any vent gas or liquid residue currently combusted in Boiler 25 or should begin combusting additional vent gases or liquid residues, the permittee shall provide notice to the WVDAQ and US EPA at least 21 days in advance of any such change in operation. The permittee shall also provide F_c calculations for any new vent gases combusted in Boiler 25 (if applicable). However, no further petitions under 40 CFR§75.66 are necessary for these operational changes unless the permittee desires to use an F-factor calculation methodology for vent gases and liquid residue combustion that differs from the methodology approved by US EPA on May 13, 2004.
[45CSR40, Emission Unit ID (25E)]

4.6. Compliance Plan

4.6.1. N/A

5.0 Source-Specific Requirements [Specialty Surfactants (TRITON), Unit ID(s) (listed under Specialty Surfactants within Section 1.0)]

5.1. Limitations and Standards

5.1.1. Emissions to the atmosphere from the Specialty Surfactants Plant shall be limited to the hourly and annual emission limits established in Table 5.1.1.

Table 5.1.1. Emission Limits for Specialty Surfactants Process

Emission Point ID No.	Pollutant	Emission Limits pph	Emission Limits tpy
E-1081-3, E-1081-2, E-1084-1, E-1084-2, E-1085-1, E-1085-2, E-1086-1, E-1086-3, E-1086-4, E-1088-1	SO_2 VOC Ethylene Oxide Propylene Oxide Formaldehyde Ethylene Dichloride THAP[1]	— 88.0 0.65 10.8 0.17 0.088 45.0	0.25 9.88 0.0445 0.62 0.0200 0.009 2.27
T-8313, T-8314, T-8320, T-8321, T-8322, T-8323, T-8324, T-8331, T-8332, T-8333, T-8334, T-8341, T-8343, T-8344, T-8345, T-8346, T-8350, T-8351, T-8352, T-8354, T-8355, T-8356, T-8360, T-8361, T-8362, T-8363, T-8364, T-8365, T-8366, T-8371, T-8372, T-8373, T-8375, T-8376, T-8380, T-8381, T-8382, T-8383, T-8390, T-8391, T-8392, T-8393, T-8420, T-8433, T-8435, T-8517, T-8520, T-8706, T-8709, T-8721, T-8723, T-8725, T-8817, T-8835, L-1001, L-1002, L-1003, L-1004, L-1005	PM_{10} VOC Ethylene Oxide Formaldehyde Propylene Oxide THAP[1]	0.2 69.0 0.09 0.16 12.8 26.0	0.02 2.45 0.02 0.02 0.1209 0.17
E-1086-7	Ethylene Glycol	0.01	0.001
T-8729	No Regulated Air Pollutant	NA	NA
T-8738	No Regulated Air Pollutant	NA	NA
E-1087-1	PM_{10}	3.22	0.06

[1]THAP includes: ethylene oxide, propylene oxide, formaldehyde, ethylene dichloride, acetaldehyde, benzyl chloride, cresylic acid, 1,4-dioxane, ethylene glycol, glycol ethers, methanol, toluene, and other HAPs that could be present as trace constituents in raw materials.

[45CSR13, Permit Number R13-1517B, Condition 4.1.1., Emission Point ID (Above in Table 5.1.1)]

5.1.2. All emissions from the operation of the 8500 Reactor, with the exception of emissions from the production of X-200 Starter, Product CF-10, Product DF-12, or Product DF-18, shall be directed first through the Caustic Scrubber (C-8110) and then through the Water Scrubber (C-8130). Emissions from the production of X-200 Starter, Product CF-10, Product DF-12, and Product DF-18, may be directed from the 8500 Reactor directly to the Water Scrubber (C-8130).

[45CSR13, Permit Number R13-1517B, Condition 4.1.2., Emission Unit ID (8500 Reactor)]

5.1.3. The permittee shall ensure complete reaction by redundant measurement and interlock of starter charge, Ethylene Oxide and Propylene Oxide feed, temperature, and pressure. The process interlock shall prevent venting until the preset criteria for complete reaction are met. These criteria must include positive isolation of Ethylene Oxide and Propylene Oxide feed.

[45CSR13, Permit Number R13-1517B, Condition 4.1.3., Emission Unit ID (8400)]

5.1.4. *Operation and Maintenance of Air Pollution Control Equipment.* The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]

[45CSR13, Permit Number R13-1517B, Condition 4.1.4., Equipment ID(s) (C-1087-1, C-8110, C-8130)]

5.1.5. Emissions from the equipment identified in 5.1.1 above shall be routed to and controlled by those control devices identified in Section 1.0 under Specialty Surfactants prior to venting emissions to the atmosphere, excepting only periods of emergency repairs of control equipment and unanticipated control equipment failure for reasons beyond the reasonable control of the permittee, or as otherwise allowed by this permit or applicable regulation.

In the event that both the Caustic Scrubber (C-8110) and the Water Scrubber (C-8130) are off-line (e.g. due to plant turnaround), storage tank emissions that normally vent to the scrubber system are authorized to be discharged directly to the air. During such outages, there shall be no materials transferred into tanks that normally vent to the scrubber system.

Due to unavoidable malfunction of equipment or other conditions resulting in emissions exceeding the levels established in this permit, the Director may grant the permittee a variance to operate the related production equipment for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the permittee and approved by the Director. During such times, the permittee shall take all reasonable and practicable steps to minimize emissions.

[45CSR13, Permit Number R13-1517B, Condition 4.1.5., Equipment ID(s) (C-1087-1, C-8110, C-8130)]

5.1.6. The permittee shall implement a Leak Detection and Repair Program ("LDAR") compliant with the HON equipment leak requirements in 40 CFR 63, Subpart H for all equipment covered by 40 CFR 63, Subpart PPP (as well as equipment in TAP service). For the remainder of the Specialty Surfactants Plant, the permittee shall implement a LDAR Program compliant with 45CSR§21-37, excluding the fugitive emission components associated with the equipment listed below that have been determined as insignificant fugitive emission sources provided that the total organic liquid vapor pressure is maintained at or below 0.01 mm Hg at 20°C.

Tanks 8323, 8324, 8332, 8333, 8343, 8344, 8353, 8354, 8363, 8364, 8373, 8381, 8382, 8383, 8706, 8709, 8721, 8723, and 8725.

For equipment components in the Specialty Surfactants Plant that are in light liquid service less than 300 hours per year, the permittee shall implement a LDAR Program compliant with the heavy liquid provisions of 45CSR§21-37. Periodic reports required by the LDAR program may be submitted as part of the semi-annual periodic reports required by Section 5.5.3.

[45CSR13, Permit Number R13-1517B, Condition 4.1.6., 40CFR§63.1434, CO-R27-97-17-A(94-21), CO-R21-98-22, Equipment (VOC/HAP/TAP service)]

5.1.7. The permittee shall comply with all applicable standards and requirements of 40CFR Part 63 Subpart PPP – "National Emission Standards for Hazardous Air Pollutants for Polyether Polyols Production". The subpart includes requirements to limit HAP emissions from polyether polyols manufacturing units – which includes purification systems, reactors and their associated product separator and recovery devices, other associated unit operations, storage vessels, surge control vessels, bottoms receivers, product transfer racks, connected ducts and piping, combustion, recovery, or recapture devices or systems, and equipment leaks. This subpart also includes specific notification, testing, monitoring, recordkeeping, and reporting requirements. The pertinent sections of 40CFR§63.1420 applicable to this facility include, but are not limited to, the following:
[40CFR§63.1420]

5.1.7.1 The permittee shall reduce the total epoxide emissions from the applicable 40CFR63 Subpart PPP process vents of the Specialty Surfactants Plant by an aggregated 98 percent.
[40CFR§63.1425(b)(2)(ii)]

[45CSR13, Permit Number R13-1517B, Condition 4.1.7., Equipment ID (8400)]

5.1.8. The permittee shall comply with all applicable requirements of 45CSR7 "To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations", with the exception of any more stringent limitations set forth in this permit.

5.1.8.1. The permittee shall not cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in Sections 5.1.8.2 and 5.1.8.3.
[45CSR§7-3.1.] {*E-1087-1, T-8706, and T-8709*}

5.1.8.2. The provisions of Section 5.1.8.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.2.] { *E-1087-1, T-8706, and T-8709}

5.1.8.3. The permittee shall not cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to Section 5.1.8.4 is required to have a full enclosure and be equipped with a particulate matter control device.
[45CSR§7-3.7.]

5.1.8.4. The permittee shall not cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
[45CSR§7-5.1.]
[45CSR13, Permit Number R13-1517B, Condition 4.1.8]

5.1.9. The permittee shall comply with all applicable requirements of 45CSR21 "Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds", with the exception of any more stringent limitations set forth in this permit. Specific emission limits under 45CSR21, which pertain to the Specialty Surfactants Area can be found in Section 9.0 of this Title V Permit

[45CSR13, Permit Number R13-1517B, Condition 4.1.9., Emission Point ID (E-1081-3, T-8352, T-8362, and L-1004)]

5.1.10. The permittee shall comply with all applicable requirements of 45CSR27 "To Prevent and Control the Emissions of Toxic Air Pollutants", with the exception of any more stringent limitations set forth in this permit. Specific emission limits under 45CSR27, which pertain to the Specialty Surfactants Area can be found in Section 8.0 of this Title V Permit.

[45CSR13, Permit Number R13-1517B, Condition 4.1.10., Emission Unit ID (8400)]

5.1.11. The heat exchanger systems used in the Specialty Surfactants Plant to cool process equipment or materials that are covered by 40CFR63, Subpart PPP shall operate with a cooling pressure fluid at least 5 psig greater than the maximum pressure on the process fluid side or are operated as once through cooling water subject to an NPDES permit that meets the requirements of 40CFR§63.104(a)(3) and therefore meet the exemption from the heat exchanger monitoring requirements of 40CFR§63.104(a).
[45CSR34, 40CFR §63.104(a)]

5.1.12. ~~The permittee has identified portions of the Specialty Surfactants Plant as being subject to the 40CFR63, Subpart FFFF "Miscellaneous Organic NESHAP" and therefore shall be in compliance with all applicable requirements of this Federal Regulation by its compliance date of May 10, 2008. The permittee is required to submit a "Notification of Compliance Status" (NOCS) Report by October 7, 2008 in accordance with 40CFR§63.2520(d)(1).~~

MON MACT. The permittee shall comply with the following provisions for wastewater as specified by 40 C.F.R. §63.2485(i).

Process wastewater stream ID TR-020/GR-7M Decant is classified as Group 1 wastewater. As provided by the NOCS, TR-020/GR-7M Decant must be managed as hazardous waste and shipped to an off-site facility authorized to manage hazardous waste.

The permittee shall develop and maintain a maintenance wastewater plan that is implemented per §63.2485(a) and §63.105, except as specified in §63.2485.
[45CSR34, 40 C.F.R. §63.2485; Wastewater Stream (GR-7M Decant)]

5.1.13. ~~The permittee shall submit a complete application for significant modification to the Title V permit, which incorporates the information submitted within the Notification of Compliance Status (NOCS) Report required by subpart FFFF. The Title V modification application shall be submitted by October 7, 2008, which corresponds to the maximum time allowed for NOC submittal under this NESHAP Regulation.~~

~~This deadline may be changed by mutual agreement between the permittee and the Director. The permittee who wishes to request a change in a deadline shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The permittee shall include in the request whatever information he or she considers useful to convince the Director than an adjustment is warranted.~~

~~**[45CSR§30-6.5.b., 45CSR§30-12.7.]**~~

MON MACT. The permittee shall comply with the following general requirements for emission limits, work practice standards and compliance requirements as specified by §63.2450.

- The Solvent Recovery Column (Eq. Id. 8101), Group 2 Continuous Process Vent, must be operated with a total resource effectiveness (TRE) index greater than 5.0.

- Rail car and tank truck loading racks used to load organic liquids containing hazardous air pollutants shall be operated as Group 2 transfer operations as defined by the MON Rule. (Rack IDs: L-1001, L-1003, L-1004 and L-1005).

- The following storage vessels shall be operated as Group 2 as defined by the MON Rule. (Storage Vessel IDs: T8310, T8320, T8321, T8322, T8323, T8324, T8331, T8334, T8343, T8344, T8345, T8346, T8351, T8353, T8355, T8356, T8360, T8361, T8362, T8363, T8364, T8365, T8366, T8373, T8375, T8376, T8380, T8381, T8382, T8383, T8390, T8391, T8392, T8393, T8420, T8517, and T8817.

[45CSR34, 40 C.F.R. §63.2450]

5.1.14. **MON MACT.** The permittee shall comply with the applicable equipment leak standards of the MON MACT as specified by 40 C.F.R. §63.2480(b), Subpart H of 40 C.F.R. 63. As a result, the permittee has defined the following schedule within their NOC report.

Phase	Planned Schedule for Implementation On or Before
Phase I – Beginning on the compliance date	May 10, 2008
Phase II – Beginning no later than 1 year after the compliance date	May 10, 2009
Phase III – Beginning no later than 2 ½ years after the compliance data	November 8, 2010

[45CSR34, 40 C.F.R. §63.2480]

5.1.15. **MON MACT** The permittee shall comply with the applicable general provisions of 40 C.F.R.63 Subpart A as specified by 40 C.F.R. §63.2540 and Table 12 of Subpart FFFF.
[45CSR34, 40 C.F.R. §63.2540; 40 C.F.R. § 63 Table 12 to Subpart FFFF]

5.2. Monitoring Requirements

5.2.1. The permittee shall install, calibrate, and maintain in good working condition the following equipment and record and maintain data from these devices:

a. Caustic Scrubber (C-8110) – Ethylene Oxide and Propylene Oxide Venting

i. Continuous monitoring and recording instrumentation with automatic alarm to ensure that scrubber liquid level is sufficient and add solution to maintain at least 100 gallons in the base section with the circulation pump on.
ii. Scrubber circulation flow monitor, alarm, and interlock to prevent venting at less than 6 gpm (3,000 pph) of water flow.
iii. Scrubber liquid temperature monitor, alarm, and interlock to prevent venting at less than 75°C, (167°F) base liquid temperature.
iv. 8400 Reactor pressure monitor to automatically control vapor flow to the packed bed scrubber at 120 scfm or less.
v. Scrubber differential pressure monitor, alarm, and interlock to override reactor pressure control to maintain scrubber differential pressure at 25 inches of water or lower.
vi. The permittee shall sample, titrate, and record scrubber caustic concentration once per shift during operation and add NaOH as required to maintain at least 2% NaOH concentration.
vii. The permittee shall blow down half of the scrubber liquid and replace with fresh solution at least weekly. This activity must be performed during periods when the 8400 Reactor is not venting.

b. Water Scrubber (C-8130)

i. Continuous monitoring and recording instrumentation with automatic alarm to ensure that scrubber liquid level is sufficient and add solution to maintain at least 100 gallons in the base section with the circulation pump on.
ii. Scrubber make-up water flow monitor, alarm, and interlock to prevent venting at less than 6 gpm (3,000 pph) make-up flow.
iii. Scrubber liquid temperature monitor, alarm, and interlock to prevent at greater than 35°C (95°F)base liquid temperature.
iv. Scrubber differential pressure monitor, alarm, and interlock to override reactor pressure control to maintain scrubber differential pressure at 25 inches of water or lower.
[45CSR13, Permit Number R13-1517B, Condition 4.2.1., Equipment ID (C-8110, C-8130)]

5.2.2. The permittee shall monitor time from the end of the epoxide feed to the end of the Extended Cook-Out ("ECO");

[40CFR§63.1427(i), 45CSR13, Permit Number R13-1517B, Condition 4.2.2., Equipment ID (8400)]

5.2.3. For the purpose of determining compliance with the opacity limits of 45CSR7, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted each time that solid material is unloaded to Vessel 8701. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of 45CSR§7A as soon a practicable, but within seventy-two (72) hours of the visual emission check unless corrective action is taken to eliminate the visible emissions.

[45CSR13, Permit Number R13-1517B, Condition 4.2.3., 45CSR§30-5.1.c.1.B., Emission Point ID (E-1087-1)]

5.3. Testing Requirements

5.3.1. At the request of the Secretary a performance test shall be conducted to confirm compliance with emission limitations set forth in Section 5.1.1., and to confirm correlation between on-line computer simulation determinations and actual measurements during subject performance tests. Results of such performance tests shall be submitted to the Director of the Division of Air Quality within ninety (90) days following the completion of the aforementioned tests. Tests shall be conducted under those production conditions in which peak emission rates will occur. Thirty (30) days prior to conducting such performance tests, a test protocol shall be submitted to the Director for his approval. The Director must be notified at least fifteen (15) days in advance of the actual dates and times during which the tests will be conducted.
[45CSR§13-6.1]

[45CSR13, Permit Number R13-1517B, Condition 4.3.1]

5.3.2. *Stack testing.* At such reasonable times as the Secretary may designate, the permittee may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases when the Secretary has reason to believe that an emission limitation is being violated. For cause, the Secretary may request the permittee to install such stack gas monitoring devices as the Secretary deems necessary to determine continuing compliance. The data from such devices shall be readily available for review on-site or at such other reasonable location that the Secretary may specify. At the request of the Secretary, such data shall be made available for inspection or copying and the Secretary may require periodic submission of excess emission reports.

[45CSR13, Permit Number R13-1517B, Condition 4.3.2., Emission Point ID (E-1087-1)]

5.3.3. *Compliance testing.* Any such test to determine compliance with particulate matter limitations set forth in Section 5.1.1 shall be conducted in accordance with Method 5 of 40CFR60 Appendix A or Method 201 or 201A of 40CFR§51. All such compliance tests must consist of not less than three (3) test runs; any test run duration shall not be less than sixty (60) minutes and no less than thirty (30) standard cubic feet of exhaust gas must be sampled during each test run. Such tests shall be conducted under such reasonable operating conditions as the Secretary may specify. The Secretary, or a duly authorized representative, may option to witness or conduct such stack tests. Should the Secretary exercise this option to conduct such tests, the registrant shall provide all necessary sampling connections and sampling ports located in a manner as the Secretary may require, power for test equipment and required safety equipment in place such as scaffolding, railings and ladders in order to comply with generally accepted good safety practices.
{E-1087-1}

[45CSR13, Permit Number R13-1517B, Condition 4.3.3.]

5.3.4. Any stack serving any process source operation or air pollution control device on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.
[45CSR§7-4.12.] {*E-1087-1}*

[45CSR13, Permit Number R13-1517B, Condition 4.3.4]

5.3.5. *Opacity testing.* Any test to determine compliance with the visible emission (opacity) limitations set forth in Sections 5.1.8, except as provided by Condition 5.2.3., shall be conducted by a qualified visible emission observer in accordance with 45CSR7A – "Compliance Test Procedures for 45CSR7 – *To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations*" and Method 22 of 40CFR60 Appendix A. Nothing in this section, however, shall preclude any permittee or the Secretary from using opacity data from a properly installed, calibrated, maintained and operated continuous opacity monitor as evidence to demonstrate compliance or a violation of visible emission requirements. If continuous opacity monitor data results are submitted when determining compliance with visible emission limitations for a period of time during which 45CSR7A or Method 22 data indicates noncompliance, the 45CSR7A or Method 22 data shall be used to determine compliance with the visible emission limitations.
{E-1087-1}

[45CSR13, Permit Number R13-1517B, Condition 4.3.5]

5.3.6. *Notification of compliance testing.* For any stack emission compliance test to be conducted by the permittee as set forth in Section 5.3, a test protocol shall be submitted to the Secretary at least thirty (30) calendar days prior to the scheduled date of the test. Such compliance test protocol shall be subject to approval by the Secretary. The permittee shall notify the Secretary at least fifteen (15) days in advance of actual test dates and times during which the test (or tests) will be conducted.

[45CSR13, Permit Number R13-1517B, Condition 4.3.6]

5.3.7. *Alternative test methods.* The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.
[45CSR§7-8.2., 45CSR13, Permit Number R13-1517B, Condition 4.3.7]

5.4. Recordkeeping Requirements

5.4.1. *Record of Maintenance of Air Pollution Control Equipment.* For all pollution control equipment listed in Section 1.0 of permit Number R13-1517B and any amendments thereto, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures. This provision applies to Baghouse C-1087-1, Caustic Scrubber C-8110, and Water Scrubber C-8130.

[45CSR13, Permit Number R13-1517B, Condition 4.4.2., Equipment ID(s) (C-1087-1, C-8110, C-8130,)]

5.4.2. *Record of Malfunctions of Air Pollution Control Equipment.* For all air pollution control equipment listed in Section 1.0 of permit Number R13-1517B and any amendments thereto, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. This provision applies to Baghouse C-1087-1, Caustic Scrubber C-8110, and Water Scrubber C-8130. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, Permit Number R13-1517B, Condition 4.4.3 Equipment ID(s) (C-1087-1, C-8110, C-8130)]

5.4.3. Compliance with Sections 5.4.1 and 5.4.2 may be shown by keeping similar records required by the requirements of the Startup, Shutdown, and Malfunction Plan as contained in 40CFR63 Subpart A and as may be amended by specific MACT subpart requirements.

[45CSR13, Permit Number R13-1517B, Condition 4.4.4., Equipment ID(s) (C-1087-1, C-8110, C-8130, E-1085)]

5.4.4. To ensure proper operation of Reactor 8400 the permittee shall verify and record that the correct amount of active catalyst has been charged for each batch, except for those reactions which are self-initiating.

[45CSR13, Permit Number R13-1517B, Condition 4.4.5., Equipment ID (8400 Reactor)]

5.4.5. Unless otherwise specified in this permit, the permittee shall keep copies of all applicable records and reports required by section 5 of this permit and by 40CFR63 Subpart PPP for at least five (5) years. All applicable records shall be maintained in such a manner that they can be readily accessed. The most recent six months of records shall be retained on site or shall be accessible from a central location by computer or other means that provide access within a reasonable time. Access to the most recent six months of records required by 40CFR63 Subpart PPP must be provided within two hours after a request. The remaining four and one-half years of records may be retained offsite. If the permittee submits copies of reports to the WV DAQ and US EPA Regional Office, the permittee is not required to maintain copies of reports. Records may be maintained in hard copy or computer-readable form including, but not limited to, on microfilm, computer, floppy disk, magnetic tape, or microfiche.

[45CSR13, Permit Number R13-1517B, Condition 4.4.6]

5.4.6. The permittee shall maintain the records specified in paragraphs a. and b. below, for each product class. The permittee shall also maintain the records related to the initial determination of the percent epoxide emission reduction specified in paragraphs c. through j. below, as applicable, for each product class.

a. Operating conditions of the product class, including:

i. Pressure decay curve;

ii. Minimum reaction temperature;

iii. Number of hydrogen atoms in the raw material;

iv. Minimum catalyst concentration;

v. Ratio of Ethylene Oxide/Propylene Oxide at the end of the epoxide feed; and

vi. Reaction conditions, including the size of the reactor or batch.

b. A listing of all products in the product class, along with the information specified in paragraphs a.i. through a.vi. of this section, for each product.

c. The concentration of epoxide at the end of the epoxide feed, determined in accordance with 40CFR§63.1427(b)(1).

d. The concentration of epoxide at the onset of the ECO, determined in accordance with 40CFR§63.1427(c).

e. The uncontrolled epoxide emissions at the onset of the ECO, determined in accordance with 40CFR§63.1427(c)(1). The records shall also include all the background data, measurements, and assumptions used to calculate the uncontrolled epoxide emissions.

f. The epoxide emissions at the end of the ECO, determined in accordance with 40CFR§63.1427(d)(1). The records shall also include all the background data, measurements, and assumptions used to calculate the epoxide emissions.

g. The percent epoxide reduction for the batch cycle, determined in accordance with 40CFR§63.1427(e)(1). The records shall also include all the background data, measurements, and assumptions used to calculate the epoxide emissions.

h. The parameter level, established in accordance with 40CFR§63.1427(i)(2).

i. If epoxide emissions occur before the end of the ECO, the permittee shall maintain records of the time and duration of all such emission episodes that occur during the initial demonstration of batch cycle efficiency.

[40CFR§63.1427(j)(1), 45CSR13, Permit Number R13-1517B, Condition 4.4.7., Equipment ID (8400)]

5.4.7. The permittee shall maintain the following records for each batch cycle: the product being produced and the product class to which it belongs, and a record of the value of the parameter monitored in accordance with Section 5.2.2. In addition, if epoxide emissions occur before the end of the ECO, the permittee shall maintain records of the time and duration of all such emission episodes.
[40CFR§63.1427(j)(2), 45CSR13, Permit Number R13-1517B, Condition 4.4.8., Equipment ID (8400)]

5.4.8. The permittee shall maintain records of all monitoring data required by Section 5.2.3 documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. An example form is supplied as Appendix A. Should a visible emission observation be required to be performed per the requirements specified in 45CSR7A, the data records of each observation shall be maintained per the requirements of 45CSR7A. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (O/S) or equivalent.

[45CSR13, Permit Number R13-1517B, Condition 4.4.9., Emission Point ID (E-1087-1)]

5.4.9. **MON MACT.** The permittee shall keep record of tank truck inspections used to ship TR020/GR-7M Decant (Group 1 Wastewater) to off-site disposal.

[45CSR34, 40 C.F.R. §63.2470(e), §63.1253(f); Wastewater Stream (GR-7M Decant)]

5.4.10. **MON MACT.** The permittee shall maintain the applicable records for compliance with the MON as specified by 40 C.F.R. §63.2525. Therefore, the permittee shall maintain the following records to demonstrate compliance with the MON requirements and this permit.

- Maintain supporting information used to determine MON initial applicability to process vents, storage vessels, equipment leaks, transfer operations, heat exchangers, process wastewater and in-process aqueous liquid streams.

- Maintain operating scenarios and calculations of uncontrolled hazardous air pollutant emissions for process vents used to prepare the NOCS.

- Maintain documentation of total source effectiveness (TRE) index determination for the Surfactant Recovery Column (Eq. Id. 8101).

- Maintain records of monitoring and inspections results required by 40 CFR 63, Subpart H for equipment component leak detection and repair.

- Maintain records of visual inspections conducted for tank trucks that are used to ship TR-020/GR-7M Decant to off-site locations.

- Maintain a record of each off-site shipment of wastewater stream TR020/GR-7M Decant.

- Maintain a record each time a safety device is opened to the air that contains hazardous air pollutants to avoid unsafe conditions.

- Maintain ~~the~~ a copy of the following reports and notifications:

  - Notice of initial notification

  - Notification of compliance status report

  - Semiannual compliance reports including information regarding process changes as specified by §63.2520(e)(10).

[45CSR34, 40C.F.R.§63.2525]

5.5. Reporting Requirements

5.5.1. On a semi-annual basis, the permittee shall report the emission rates of ethylene oxide and propylene oxide, from process vents, as calculated by computer simulation (adjusted if necessary to reflect any changes required by more recent or accurate stack test data) based on actual production data.

[45CSR13, Permit Number R13-1517B, Condition 4.5.1., Emission Point ID (E-1081-3)]

5.5.2. The permittee, on a semi-annual basis, shall file reports which identify all periods of time during which compliance was not achieved with the operating parameters shown in Section 5.2.1 above. Such reports shall be certified to be accurate and true by a corporate official or his or her designee and filed within sixty (60) days of the end of each semi-annual reporting period. In any such aforementioned period of time, the permittee shall

provide information detailing reasons for such excursions and corrective action taken. If there are periods of non-compliance, the report shall so certify. The report(s) may be submitted as part of the Title V semi-annual periodic report.

[45CSR13, Permit Number R13-1517B, Condition 4.5.2., Equipment ID (C-8110, C-8130)]

5.5.3. The permittee shall submit semi-annual Periodic Reports as specified in paragraphs a. through f. of this section. Each report shall be submitted no later than sixty (60) days after the end of each six-month period. The semi-annual Periodic Report shall cover the preceding six-month period. This report may be submitted as part of the Title V semi-annual periodic report.

a. For equipment leaks, the permittee shall submit the information specified in 40CFR§63.1434(f).

b. Reports of each batch cycle for which an ECO excursion occurred, as defined in 40CFR§63.1427(i)(3).

c. Notification of each batch cycle when the time and duration of epoxide emissions before the end of the ECO, recorded in accordance with Section 5.4.7., exceed the time and duration of the emission episodes during the initial epoxide emission percentage reduction determination, as recorded in Section 5.4.6.h.

d. If any performance tests are reported in a Periodic Report, the following information shall be included:

i. One complete test report shall be submitted for each test method used for a particular kind of emission point tested. A complete test report shall contain the information specified in 40CFR§63.1439(e)(5)(i)(B).

ii. For additional tests performed for the same kind of emission point using the same method, results and any other information required by the test method to be in the test report shall be submitted, but a complete test report is not required.

e. The results for each change made to a primary product determination for a PMPU made under 40CFR§63.1420(e)(3) or (10).

f. The results for each reevaluation of the applicability of 40CFR63 Subpart PPP to a storage vessel that begins receiving material from (or sending material to) a process unit that was not included in the initial determination, or a storage vessel that ceases to receive material from (or send material to) a process unit that was included in the initial determination, in accordance with 40CFR§63.1420(f)(8).

[45CSR13, Permit Number R13-1517B, Condition 4.5.3., Equipment ID (8400)]

5.5.4. The permittee shall comply with the reporting requirements of 40CFR§63.1427(l) – "New polyether polyol products" and 40CFR§63.1427(m) – "Polyether polyol product changes".

[45CSR13, Permit Number R13-1517B, Condition 4.5.4., Equipment ID (8400)]

5.5.5. The permittee shall submit semi-annual monitoring reports for equipment components subject to the LDAR requirements of 45CSR§21-37 covered under Section 5.1.6. These reports may be submitted on the same schedule as the reports provided per Section 5.5.3. Semi-annual monitoring reports provided per Section 5.5.3, and required by 40CFR Part 63, Subpart PPP, will satisfy the equipment leak monitoring reports required by 45CSR27.

[45CSR13, Permit Number R13-1517B, Condition 4.5.5., Equipment (all in VOC service)]

5.5.6. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 45CSR7A must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

[45CSR13, Permit Number R13-1517B, Condition 4.5.6.]

5.5.7. The permittee shall comply with the reporting requirements for polyether polyol product manufacturing units as provided by §63.1439(e)(6)(i) through (viii).
[45CSR34 and 40 CFR§63.1439(e)(6), Emission Unit ID (8400)]

5.5.8. **MON MACT**. The permittee shall comply with the applicable reporting requirements of the MON (40 C.F.R. §63, Subpart FFFF) in accordance with 40 C.F.R. §63.2520. As a result, the permittee shall submit a semiannual compliance report that includes the information specified by 63.2525(e) and the results of equipment leak monitoring and repair conducted per 40 C.F.R. 63, Subpart H.

[45CSR34, 40 C.F.R. §63.2520(e)]

5.6. Compliance Plan

5.6.1. Not Applicable

6.0 Reserved ~~Source-Specific Requirements [Alkyl Alkanolamines (AA) Plant, Unit ID(s) (listed under Alkyl Alkanolamines (AA) Plant within Section 1.0)]~~

~~6.1. Limitations and Standards~~

~~6.1.1. Maximum hourly emissions to the atmosphere from the following tank emission points shall not exceed those values listed in the table:~~

~~Emission Point ID~~	~~Pollutant~~	~~Hourly Emissions (lb/hr)~~
~~T-200~~	~~VOC~~	~~5.2~~
~~T-241~~	~~VOC~~	~~2~~
~~T-298~~	~~VOC~~	~~5.2~~
~~T-299~~	~~VOC~~	~~5.2~~
~~T-369A~~	~~VOC~~	~~1~~
~~T-369B~~	~~VOC~~	~~1~~
~~T-369C~~	~~VOC~~	~~1~~
~~T-489B~~	~~VOC~~	~~5.2~~
~~T-503~~	~~VOC~~	~~5.2~~
~~T-504~~	~~VOC~~	~~5.2~~
~~T-529~~	~~VOC~~	~~1~~
~~T-567~~	~~VOC~~	~~1~~
~~T-568~~	~~VOC~~	~~1~~
~~T-569~~	~~VOC~~	~~2~~
~~T-570A~~	~~VOC~~	~~1~~
~~T-570B~~	~~VOC~~	~~1~~
~~T-572~~	~~VOC~~	~~2~~
~~T-580~~	~~VOC~~	~~1~~
~~T-581~~	~~VOC~~	~~1~~
~~T-582~~	~~VOC~~	~~1~~
~~T-583~~	~~VOC~~	~~1~~
~~T-584~~	~~VOC~~	~~1~~

~~Emission Point ID~~	~~Pollutant~~	~~Hourly Emissions (lb/hr)~~
~~T-585~~	~~VOC~~	~~1~~
~~T-587~~	~~VOC~~	~~2.9~~ ~~(1)~~
~~T-588~~	~~VOC~~	~~2.9~~ ~~(1)~~
~~T-1501~~	~~VOC~~	~~5.2~~
~~T-1502A~~	~~VOC~~	~~5.2~~
~~T-1502B~~	~~VOC~~	~~5.2~~
~~T-1503A~~	~~VOC~~	~~5.2~~
~~T-1503B~~	~~VOC~~	~~5.2~~
~~T-1504~~	~~VOC~~	~~5.2~~
~~T-1505~~	~~VOC~~	~~5.2~~
~~T-1506A~~	~~VOC~~	~~5.2~~
~~T-1506B~~	~~VOC~~	~~5.2~~
~~T-1507A~~	~~VOC~~	~~5.2~~
~~T-1507B~~	~~VOC~~	~~5.2~~
~~T-1508A~~	~~VOC~~	~~5.2~~
~~T-1508B~~	~~VOC~~	~~5.2~~
~~T-1509A~~	~~VOC~~	~~5.2~~
~~T-1509B~~	~~VOC~~	~~5.2~~
~~T-1510A~~	~~VOC~~	~~5.2~~
~~T-1510B~~	~~VOC~~	~~5.2~~
~~T-1511A~~	~~VOC~~	~~5.2~~
~~T-1511B~~	~~VOC~~	~~5.2~~
~~T-5694~~	~~VOC~~	~~5.2~~
~~T-9207~~	~~VOC~~	~~5.2~~
~~T-9636~~	~~VOC~~	~~5.2~~

Emission Point ID	Pollutant	Hourly Emissions (lb/hr)
(1) Hourly emissions for T-587 and T-588 increased from 2 lb/hr to 2.9 lb/hr under R13-1470B. TANKs 4.0 was used to calculate emissions.		

[45CSR13, Permit Number R13-1470B, Condition A.1]

6.1.2. Maximum annual VOC emissions to the atmosphere from the tank emission points listed in 6.1.1 shall not exceed a total tank emission limit of 4,770 lb/yr. Compliance with the yearly maximum limit shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of emissions calculated on a monthly basis, in tons, for the previous twelve (12) calendar months.
[45CSR13, Permit Number R13-1470B, Condition A.2]

6.1.3. Maximum annual VOC emissions to the atmosphere from the L800TT and L800RC loading racks, emission point IDs E-808 and E-809 shall not exceed an aggregate emission limit of 4,450 lb/yr. Compliance with the yearly maximum limit shall be determined using a rolling yearly total.
[45CSR13, Permit Number R13-1470B, Condition A.3., Emission Point ID (E-808 and E-809)]

6.1.4. Maximum hourly emissions to the atmosphere from the #9, #10, #12, #13, and #8 still jet vents having the following emission points shall not exceed those values listed below:
Table 6.1.4:

Emission Point ID	Pollutant	Hourly Emissions (lb/hr)
E-801	VOC	1
E-802	VOC	1
E-803	VOC	1
E-804	VOC	1
E-806	VOC	1

[45CSR13, Permit Number R13-1470B, Condition A.4., Emission Point ID (Table 6.1.4)]

6.1.5. Maximum annual VOC emissions to the atmosphere from the emission points listed in Table 6.1.4 above shall not exceed a total emission limit of 13,240 lb/yr. Compliance with the yearly maximum limit shall be determined using a rolling yearly total.
[45CSR13, Permit Number R13-1470B, Condition A.5., Emission Point ID (Table 6.1.4)]

~~6.1.6. Maximum emissions to the atmosphere from Emission Point ID# E-800 (AA Water Scrubber) shall not exceed those values below:~~
~~Table 6.1.6:~~

~~Pollutant~~	~~Hourly Emissions (lb/hr)~~	~~Annual Emissions (lb/yr)~~
~~Diethylamine, Methylamine, Dimethylamine, and other VOCs~~	~~0.59~~	~~3070~~
~~Ethylene Oxide~~	~~0.1~~	~~2~~

~~Compliance with the yearly maximum limit shall be determined using a rolling yearly total. Compliance with these emission limits streamlines and assures compliance with the closed vent requirements,40CFR60, Subpart Kb, for Tank T-571.~~
~~**[45CSR13, Permit Number R13-1470B, Condition A.6., Emission Point ID(E-800); and 40CFR§60.112b(3)(a)(i), Equipment IDs (T-571)]**~~

~~6.1.7. Maximum ethylene oxide emissions to the atmosphere from the EO Scrubber (Emission Point ID#E-805; Eq. ID No. C-801) shall not exceed 2.18 lb/hr and 30 lb/yr. Compliance with the yearly maximum limit shall be determined using a rolling yearly total.~~

~~The above hourly and annual EO emission limits shall supersede and replace the equivalent requirements pertaining to the aforementioned source contained in Consent CO-R27-97-17-A(94-21). All other provisions of Consent CO-R27-97-17-A(94-21) are intact and valid.~~
~~**[45CSR13, Permit Number R13-1470B, Condition A.7., Emission Point ID (E-805)]**~~

~~6.1.8. The collection efficiency for the AA Water Scrubber (Equip. ID No. C-800) shall be no lower than 99% for Diethylamine emissions, 99% for Methylamine emissions, 99% for Dimethylamine emissions, and 98% for ethylene oxide emissions.~~
~~**[45CSR13, Permit Number R13-1470B, Condition A.8., Equipment ID (C-800)]**~~

~~6.1.9. The liquor flow rate to the AA Water Scrubber (Equip. ID No. C-800) shall be no lower than 5.5 gallons per minute.~~
~~**[45CSR13, Permit Number R13-1470B, Condition A.9., Equipment ID (C-800)]**~~

~~6.1.10. The collection efficiency for the EO Scrubber (Equip. ID No. C-801) shall be no lower than 90% for ethylene oxide emissions.~~
~~**[45CSR13, Permit Number R13-1470B, Condition A.10., Equipment ID (C-801)]**~~

~~6.1.11. The liquor flow rate to the EO Scrubber (Equip. ID No. C-801) shall be no lower than 14.5 gallons per minute.~~
~~**[45CSR13, Permit Number R13-1470B, Condition A.11., Equipment ID (C-801)]**~~

~~6.1.12. The permitted facility shall be constructed and operated in accordance with information filed in Permit Application R13-1470, R13-1470A, R13-1470B, and any amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.~~
~~**[45CSR13, Permit Number R13-1470B, Condition C.3]**~~

6.1.13. The Alkyl Alkanolamines Process Unit shall comply with 40CFR63, "HON" LDAR requirements pertaining to the EO reactor feed line.
[45CSR34, 40CFR63, Subpart H Equipment ID (EO Feed Line)]

6.1.14. The permittee shall comply with all applicable requirements of 45CSR21 "Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds", with the exception of any more stringent limitations set forth in this permit. Specific emission limits under 45CSR21, which pertain to the Alkyl Alkanolamines process unit can be found in Section 9.0 of this Title V Permit.

[45CSR21, CO-R21-98-22, Emission Point ID (E-800, E-805)]

6.1.15. The permittee shall comply with all applicable requirements of 45CSR27 "To Prevent and Control the Emissions of Toxic Air Pollutants", with the exception of any more stringent limitations set forth in this permit. Specific emission limits under 45CSR27, which pertain to the Alkyl Alkanolamines process unit can be found in Section 8.0 of this Title V Permit.

[45CSR27, CO-R27-97-17-A(94-21), Emission Point ID (E-805, E-800)]

6.1.16. The heat exchanger systems used in the Alkyl Alkanol Amines Plant to cool process equipment or materials that are covered by the HON MACT shall continue to utilize a once through system in order to maintain the exemption from the heat exchanger monitoring requirements of 40CFR§63.104(a).
[45CSR34, 40CFR§63.104(a)]

6.2. Monitoring Requirements

6.2.1. To determine compliance with 6.1.1 and 6.1.2, the permittee shall monitor and maintain a certified record of the throughput for each tank. On a monthly basis, and twelve (12) month rolling period, emissions must be calculated using the standard fixed roof tank calculation from AP-42. Tank fill rate, temperature, molecular weight of stored contents, vapor pressure, and vapor/space saturation factor must be maintained on site.
[45CSR13, Permit Number R13-1470B, Condition B.1., Emission Point ID (T-Designations in 6.1.1.) and 40CFR§60.116b(b), Equipment ID., (1509A, 1509B, 1510A, 1510B, 1511A, 1511B)]

6.2.2. To determine compliance with 6.1.4 and 6.1.5, the permittee shall monitor and maintain a certified record of the column pressure and condensate temperature once per shift when VOCs are present for each distillation column. The following table shows column pressures as a function of condensate temperature for which the VOC mass emission limits in 6.1.4 and 6.1.5 will not be exceeded. VOC emissions will be less than permitted amounts as long as column pressures are no less than the value listed for the individual product for a specified temperature.

	Degrees C	10	20	30	40	50	60	70
Emission Point	Product	Minimum mm Hg						
E-801	DEEA	2	4	8	14	25	41	81
E-801	DMEA	4	7	12	23	40	68	147
E-801	MDEA/NMEA	1	1	2	3	5	10	18
E-802	DEEA	9	18	31	54	91	146	229
E-802	DMEA	10	18	32	55	91	147	230
E-802	MDEA/NMEA	1	1	1	1	1	1	2
E-803	DEEA	1	1	3	5	9	15	26
E-803	DMEA	2	5	8	15	25	42	70
E-803	MDEA	1	1	1	1	1	1	1
E-803	NMEA	1	1	1	3	5	9	15

[45CSR13, Permit Number R13-1470B, Condition B.2., Emission Point ID (E-801, E-802, E-803)]

6.2.3. To determine compliance with 6.1.6, 6.1.8, and 6.1.9, the permittee shall monitor and maintain a certified record of the water flow rate and scrubber liquid level and record it every two (2) hours when VOCs are present.

[45CSR13, Permit Number R13-1470B, Condition B.3., Emission Point ID (E-800)]

6.2.4. To determine compliance with 6.1.7, 6.1.10, and 6.1.11, the permittee shall monitor and maintain a certified record of the water flow rate and record it hourly when ethylene oxide is present.
[45CSR13, Permit Number R13-1470B, Condition B.4., Emission Point ID (E-805)]

6.3. Testing Requirements

N/A

6.4. Recordkeeping Requirements

6.4.1. In order to assure compliance with 6.1.16 and maintain the exemption from heat exchanger monitoring requirements of 40CFR§63.104(a) as a result of incorporating a once through system, the permittee shall document and record design specifications, which detail the heat exchanger systems used in the Alkyl Alkanol Amines Plant to cool process equipment or materials that are covered by the HON MACT.

6.5. Reporting Requirements

6.5.1. All notices and reports required to be submitted to the United States Environmental Protection Agency ("USEPA")under 40 CFR63 Subpart G and H shall be submitted to the Director (and the USEPA Administrator, if appropriate).
[45CSR13, Permit Number R13-1470B, Condition B.7]

6.6. Compliance Plan

N/A

7.0. Source-Specific Requirements [40CFR63, Subpart PPP "Polyether Polyols" MACT requirements for Oxide Adducts production units, Emission Point ID(s) (See Section 1.0 for Oxide Adducts Equipment List)]

7.1. Limitations and Standards

7.1.1. The permittee shall comply with all applicable requirements of 40 CFR 63 Subpart PPP "National Emission Standard for Hazardous Air Pollutants from Polyether Polyols Production". The enumerated requirements that follow, address specific obligations taken from applicable sections of this regulation. However, the permittee shall comply with the Polyether Polyols Production MACT as referenced above in its entirety, which includes, but is not limited to the specific requirements listed within this section of the Title V permit.

7.1.2. The permittee shall comply with the standards established within 40 CFR §63.1424, as follows:

(a) Except as provided under paragraph (b) of this section, the owner or operator of an existing or new affected source shall comply with the provisions in:

(1) Sections 63.1425 through 63.1430 for process vents;
(2) Section 63.1432 for storage vessels;
(3) Section 63.1433 for wastewater;
(4) Section 63.1434 for equipment leaks;
(5) Section 63.1435 for heat exchangers;
(6) Section 63.1437 for additional test methods and procedures;
(7) Section 63.1438 for monitoring levels and excursions; and
(8) Section 63.1439 for general reporting and recordkeeping requirements.

(b) When emissions of different kinds (i.e., emissions from process vents subject to §§63.1425 through 63.1430, storage vessels subject to §63.1432, process wastewater, and/or in-process equipment subject to §63.149) are combined, and at least one of the emission streams would require control according to the applicable provision in the absence of combination with other emission streams, the permittee shall comply with the requirements of either paragraph (b)(1) or (2) of this section.

(1) Comply with the applicable requirements of this subpart for each kind of emission in the stream as specified in paragraphs (a)(1) through (5) of this section; or
(2) Comply with the most stringent set of requirements that applies to any individual emission stream that is included in the combined stream, where either that emission stream would be classified as requiring control in the absence of combination with other emission streams, or the owner chooses to consider that emission stream to require control for the purposes of this paragraph.

[45CSR34 and 40CFR§63.1424]

7.1.3. Since the permittee uses epoxides in the production of polyether polyols the affected source is subject to 63.1425(b), process vent control requirements as follows:

(b) *Requirements for epoxide emissions.* The owner or operator of an existing affected source may comply with the requirement to reduce epoxide emissions by 98% from process vents by using extended cook-out.

[45CSR34 and 40CFR§63.1425(b)(2)(ii), Emission Unit IDs (R703, R704, R705, R706, R707, R708)]

7.1.4. It is important to note the exemption given to processes which employee extended cookout (ECO) from having to determine the uncontrolled organic HAP emissions, which is stated as follows:

(d) *Determination of uncontrolled organic HAP emissions.* For each process vent at a PMPU that is complying with the process vent control requirements in §**63**.1425(b)(1)(i), (b)(1)(iii), (b)(2)(ii), (b)(2)(iv), (c)(1)(ii), or (d)(2) using a combustion, recovery, or recapture device, the permittee shall determine the uncontrolled organic HAP emissions in accordance with the provisions of this paragraph, with the exceptions noted in paragraph (d)(1) of this section. The provisions of §**63**.1427(c)(1) shall be used to calculate uncontrolled epoxide emissions prior to the onset of an extended cook out.

(1) *Exemptions.* The permittee is not required to determine uncontrolled organic HAP emissions for process vents as provided by 40CFR63.1426(d) because all process vents subject to the epoxide emission reduction requirements of §**63**.1425(b) are controlled at all times using extended cookout.
[45CSR34 and 40CFR§63.1426(d)(1)(i), Emission Unit IDs (R703, R704, R705, R706, R707, R708)]

7.1.5. The permittee shall determine the epoxide emission control efficiency for process vents subject to the epoxide emission reduction requirements of §63.1425(b) in accordance with §63.1427(e)
[45CSR34 and 40CFR§63.1426(2)(iii), Emission Unit IDs (R703, R704, R705, R706, R707, R708)]

7.1.6. The permittee must conduct a design evaluation for the extended cookout control technique as presented in §63.1427(f)(2). The permittee is not required to conduct performance tests provided uncontrolled epoxide emissions prior to the end of ECO are less than 10 tons per year (9.1 megagrams per year). Per §63.1427(a)(2)(ii) uncontrolled epoxide emissions prior to ECO shall be determined by the procedures in §63.1427(d)(1). The design evaluation shall establish the minimum duration (time) of extended cookout.
[45CSR34 and 40CFR§63.1426(f)(1) & (2), (b)(6), (d)(1)(i), Emission Unit IDs (R703, R704, R705, R706, R707, R708)]

7.1.7. The remainder of the process vent requirements specific to ECO are listed within 63.1427 as follows:
(a) *Applicability of extended cookout requirements.* Owners or operators of affected sources that produce polyether polyols using epoxides, and that are using ECO as a control technique to reduce epoxide emissions in order to comply with percent emission reduction requirements in §**63**.1425(b)(1)(i) or (b)(2)(ii) shall comply with the provisions of this section.

(1) For each product class, the permittee shall determine the batch cycle percent epoxide emission reduction for the most difficult to control product in the product class, where the most difficult to control product is the polyether polyol that is manufactured with the slowest pressure decay curve.

(2) The permittee shall determine the batch cycle percent epoxide emission reduction by using process knowledge, reaction kinetics, and engineering knowledge, in accordance with §63.1427 (a)(2)(ii) and §63.1427(e).

(ii) The permittee must maintain uncontrolled epoxide emissions prior to the end of the ECO less than 10 tons per year (9.1 megagrams per year) as determined by the procedures in §63.1427(d)(1).

(d) *Determine emissions at the end of the ECO.* The permittee shall calculate the epoxide emissions at the end of the ECO, where the end of the ECO is defined as the point immediately before the time when the reactor contents are emptied and/or the reactor vapor space purged to the atmosphere or to a combustion, recovery, or recapture device.

(d)(1) The epoxide emissions at the end of the ECO shall be determined using Equation 9

$$E_{e,E} = (C_{liq,f})(V_{liq,f})(D_{liq,f}) + (C_{vap,f})(V_{vap,f})(D_{vap,f}) \quad \text{[Equation 9]}$$

Where:

$E_{e,E}$ = Epoxide emissions at the end of the ECO, kg.

$C_{liq,f}$ = Concentration of epoxide in the reactor liquid at the end of the ECO, determined in accordance with §63.1427 (f)(1) of this section, weight percent.

$V_{liq,f}$ = Volume of reactor liquid at the end of the ECO, liters.

$D_{liq,f}$ = Density of reactor liquid, kg/liter.

$C_{vap,f}$ = Concentration of epoxide in the reactor vapor space as it exits the reactor at the end of the ECO, determined in accordance with §63.1427 (f)(2), weight percent.

$V_{vap,f}$ = Volume of the reactor vapor space as it exits the reactor at the end of the ECO, liters.

$D_{vap,f}$ = Vapor density of reactor vapor space at the end of the ECO, kg/liter.

[45CSR34 and 40CFR§63.1427(a)(1) , (a)(2)(i), (a)(2)(ii), (d)(1), Emission Unit IDs (R703, R704, R705, R706, R707, R708)]

7.1.8. (b) *Define the end of epoxide feed.* The permittee shall determine the concentration of epoxide in the reactor liquid at the point in time when all epoxide has been added to the reactor and prior to any venting. This concentration shall be determined in accordance with the procedures in §63.1427(f)(1)(i).
[45CSR34 and 40CFR§63.1427(b)(1), Emission Unit IDs (R703, R704, R705, R706, R707, R708)]

7.1.9. c) *Define the onset of the ECO.* The permittee shall calculate the uncontrolled emissions for the batch cycle by calculating the epoxide emissions, if any, prior to the onset of the ECO, plus the epoxide emissions at the onset of the ECO. The onset of the ECO is defined as the point in time when the combined unreacted epoxide

concentration in the reactor liquid is equal to 25 percent of the concentration of epoxides at the end of the epoxide feed, which was determined in accordance with §63.1427(b)- Equation 8 as follows.

(1) The uncontrolled epoxide emissions for the batch cycle shall be determined using Equation 8.

$E_{e,u} = (C_{liq,i})(V_{liq,i})(D_{liq,i}) + (C_{vap,i})(V_{vap,i})(D_{vap,i}) + (E_{epox,bef})$ [Equation 8]

Where:
$E_{e,u}$ = Uncontrolled epoxide emissions at the onset of the ECO, kilograms per (kg/)batch.
$C_{liq,i}$ = Concentration of epoxide in the reactor liquid at the onset of the ECO, which is equal to 25 percent of the concentration of epoxide at the end of the epoxide feed, determined in accordance with paragraph (b)(1) of this section, weight percent. Note: (f)(1) of this section is referenced by (b)(1) for determining epoxide concentration in the reactor liquid.
$V_{liq,i}$ = Volume of reactor liquid at the onset of the ECO, liters.
$D_{liq,i}$ = Density of reactor liquid, kg/liter.
$C_{vap,i}$ = Concentration of epoxide in the reactor vapor space at the onset of the ECO, determined in accordance with paragraph (f)(2) of this section, weight percent.
$V_{vap,i}$ = Volume of the reactor vapor space at the onset of the ECO, liters.
$D_{vap,i}$ = Vapor density of reactor vapor space at the onset of the ECO, kg/liter.
$E_{epox,bef}$ = Epoxide emissions that occur prior to the onset of the ECO, determined in accordance with the provisions of §**63**.1426(d), kilograms.
[45CSR34 and 40CFR§63.1427(c)(1), Emission Unit IDs (R703, R704, R705, R706, R707, R708)]

7.1.10. (d) *Determine emissions at the end of the ECO.* The permittee shall calculate the epoxide emissions at the end of the ECO, where the end of the ECO is defined as the point immediately before the time when the reactor contents are emptied and/or the reactor vapor space purged to the atmosphere or to a combustion, recovery, or recapture device.

(d)(1) The epoxide emissions at the end of the ECO shall be determined using Equation 9
$E_{e,E} = (C_{liq,f})(V_{liq,f})(D_{liq,f}) + (C_{vap,f})(V_{vap,f})(D_{vap,f})$ [Equation 9]
Where:

$E_{e,E}$ = Epoxide emissions at the end of the ECO, kg.

$C_{liq,f}$ = Concentration of epoxide in the reactor liquid at the end of the ECO, determined in accordance with §63.1427 (f)(1) of this section, weight percent.

$V_{liq,f}$ = Volume of reactor liquid at the end of the ECO, liters.

$D_{liq,f}$ = Density of reactor liquid, kg/liter.

$C_{vap,f}$ = Concentration of epoxide in the reactor vapor space as it exits the reactor at the end of the ECO, determined in accordance with §63.1427 (f)(2), weight percent.

$V_{vap,f}$ = Volume of the reactor vapor space as it exits the reactor at the end of the ECO, liters.

$D_{vap,f}$ = Vapor density of reactor vapor space at the end of the ECO, kg/liter.

[45CSR34 and 40CFR§63.1427(d)(1), Emission Unit IDs (R703, R704, R705, R706, R707, R708)]

7.1.11. e) *Determine percent epoxide emission reduction.* (1) The permittee shall determine the percent epoxide emission reduction for the batch cycle using Equation 10.

$$R_{batchcycle} = \left[\frac{E_{e,u} - \left(E_{e,E}\right)\left(1 - \frac{R_{addon,i}}{100}\right) - \left(E_{e,o}\right)\left(1 - \frac{R_{addon,j}}{100}\right)}{E_{e,u}} \right] * 100 \qquad [Equation\ 10]$$

Where:

$R_{batchcycle}$ = Epoxide emission reduction for the batch cycle, percent.

$E_{e,E}$ = Epoxide emissions at the end of the ECO determined in accordance with paragraph (d)(1) of this section, kilograms.

$R_{addon,i}$ = Control efficiency of combustion, recovery, or recapture device that is used to control epoxide emissions after the ECO, determined in accordance with the provisions of §63.1426(c), percent.

$E_{e,o}$ = Epoxide emissions that occur before the end of the ECO, determined in accordance with the provisions of §**63**.1426(d), kilograms.

$R_{addon,j}$ = Control efficiency of combustion, recovery, or recapture device that is used to control epoxide emissions that occur before the end of the ECO, determined in accordance with the provisions of §**63**.1426(c), percent.

$E_{e,u}$ = Uncontrolled epoxide emissions determined in accordance with paragraph (c)(1) of this section, kilograms.

[45CSR34 and 40CFR§63.1427(e)(1) , Emission Point IDs (E-703, E-704, E-705, E-706, E-707, E-708)]

7.1.12. (f) *Determination of epoxide concentrations.* The permittee shall determine the epoxide concentrations in accordance with the procedures in this paragraph.

(1) The permittee shall determine the concentration of epoxide in the reactor liquid using reaction kinetics in accordance with paragraph (f)(1)(ii) of §63.1427 as listed by Equation 12 below. The permittee may also request to use an alternative methodology in accordance with paragraph (f)(1)(iii) of §63.1427.

(ii) Determine the epoxide concentration in the reactor liquid using Equation 12. [Equation 12]

$$C_{liq,f} = C_{liq,i}\, e^{-kt} \qquad [Equation\ 12]$$

$C_{liq,f}$ = Concentration of epoxide in the reactor liquid at the end of the time period, weight percent.

$C_{liq,i}$ = Concentration of epoxide in the reactor liquid at the beginning of the time period, weight percent.

k = Reaction rate constant, 1/hr.

t = Time, hours.

Note: This equation assumes a first order reaction with respect to epoxide concentration. where:

[45CSR34 and 40CFR§63.1427(f)(1)(ii), Emission Unit IDs (R703, R704, R705, R706, R707, R708)]

7.1.13. (f)(2) The permittee shall determine the concentration of epoxide in the reactor vapor space by engineering estimation in accordance with paragraph §63.1427(f)(2)(ii) as follows.

ii) Determine the epoxide concentration in the vapor space using Raoult's Law or another appropriate phase equilibrium equation and the liquid epoxide concentration, determined in accordance with §63.1427 (f)(1) of this section.
[45CSR34 and 40CFR§63.1427(f)(2)(ii), Emission Unit IDs (R703, R704, R705, R706, R707, R708)]

7.1.14. (g) *Determination of pressure.* The permittee shall determine the total pressure of the system using standard pressure measurement devices calibrated according to the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
[45CSR34 and 40CFR§63.1427(g) Emission Unit IDs (R703, R704, R705, R706, R707, R708)]

7.1.15. (h) *Determination if pressure decay curves are similar.* The permittee shall determine the pressure decay curve as defined in §63.1423. Products with similar pressure decay curves constitute a product class. To determine if two pressure decay curves are similar when the pressure decay curves for products have different starting and finishing pressures, the permittee shall determine the time when the pressure has fallen to half its total pressure by using Equation 13:

$$Time\ (P_{half}1) - Time\ (P_{half}2) < 20\%\ T_{AVG} \qquad [Equation\ 13]$$

Where:
$P_{half}1$ = Half the total pressure of the epoxide for product 1.
Time ($P_{half}1$) = Time when the pressure has fallen to half its total pressure for product 1.
$P_{half}2$ = Half the total pressure of the epoxide for product 2.
Time ($P_{half}2$) = Time when the pressure has fallen to half its total pressure for product 2.
T_{AVG} = The average time to cookout to the point where the epoxide pressure is 25 percent of the epoxide pressure at the end of the feed step for products 1 and 2.
[45CSR34 and 40CFR§63.1427(h), Emission Unit IDs (R703, R704, R705, R706, R707, R708)]

7.1.16. The heat exchanger systems used in the Oxide Adducts Plant to cool process equipment or materials are exempt from the heat exchanger monitoring requirements of 40CFR§63.104(a) as long as the following conditions are maintained:

(i). Uses intervening fluid with less than 5% HAPs between process and cooling water sides (reactors), or
(ii). Process side HAP concentration less than 5% (product treatment systems).
[45CSR34 and 40CFR§63.1435]

7.2. Monitoring Requirements

7.2.1. (i) *ECO monitoring requirements.* The permittee using ECO shall comply with the monitoring requirements of this paragraph to demonstrate continuous compliance with this subpart. Paragraphs (i)(1) through (3) of §63.1427 address monitoring of the extended cookout.

(1) To comply with the provisions of §63.1427 (process vent provisions), the permittee shall monitor the time from the end of the epoxide feed to the end of ECO

(2) During the determination of the percent epoxide emission reduction in paragraphs (b) through (e) of §63.1427, the permittee shall establish, as a level that shall be maintained during periods of operation the following:

(i) The time from the end of the epoxide feed to the end of the ECO;

(3) For each batch cycle where ECO is used to reduce epoxide emissions, the permittee shall record the value of the monitored parameter at the end of the ECO. This parameter is then compared with the level established in accordance with number (2) above, which corresponds with paragraph (i)(2)(i) of §63.1427 to determine if an excursion has occurred. An ECO excursion is defined as one of the following:

(i) When the time from the end of the epoxide feed to the end of the ECO is less than the time established in paragraph (i)(2)(i) of §63.1427; or

(ii) When the parameter is not measured and recorded at the end of the ECO; or

[45CSR34 and 40CFR§63.1427(i), Emission Unit IDs (R703, R704, R705, R706, R707, R708)]

7.2.2. Storage tanks T-9510, 11, 12, and 13 shall comply with the monitoring and reporting provisions of 40CFR60, Subpart Kb for tanks by keeping records of the material stored and associated vapor pressures.
[40CFR§60.116b(b), Emission Unit ID (T-9510, T-9511, T-9512, T-9513]

7.3. Testing Requirements

7.3.1. N/A

7.4. Recordkeeping Requirements

7.4.1. (j) *Recordkeeping requirements.*
(1) The permittee shall maintain the records specified in paragraphs (j)(1)(i) and (ii) of §63.1427, for each product class. The permittee shall also maintain the records related to the initial determination of the percent epoxide emission reduction specified in paragraphs (j)(1)(iii) through (ix) of §63.1427, as applicable, for each product class.

(i) Operating conditions of the product class, including:

(A) Pressure decay curve;
(B) Minimum reaction temperature;
(C) Number of reactive hydrogens in the raw material;
(D) Minimum catalyst concentration;
(E) Ratio of EO/PO at the end of the epoxide feed; and
(F) Reaction conditions, including the size of the reactor or batch.

(ii) A listing of all products in the product class, along with the information specified in paragraphs (j)(1)(i)(A) through (F) of §63.1427, for each product, incorporated herein as 7.4.1.(j)(1)(i)(A)-(F) .

(iii) The concentration of epoxide at the end of the epoxide feed, determined in accordance with paragraph (b)(1) of §63.1427, incorporated herein as 7.1.8.

(iv) The concentration of epoxide at the onset of the ECO, determined in accordance with paragraph (c) of §63.1427, incorporated herein as 7.1.9.

(v) The uncontrolled epoxide emissions at the onset of the ECO, determined in accordance with paragraph (c)(1) of §63.1427, incorporated herein as 7.1.9. The records shall also include all the background data, measurements, and assumptions used to calculate the uncontrolled epoxide emissions.

(vi) The epoxide emissions at the end of the ECO, determined in accordance with paragraph (d)(1) of §63.1427, incorporated herein as 7.1.10. The records shall also include all the background data, measurements, and assumptions used to calculate the epoxide emissions.

(vii) The percent epoxide reduction for the batch cycle, determined in accordance with paragraph (e)(1) of §63.1427, incorporated herein as 7.1.11. The records shall also include all the background data, measurements, and assumptions used to calculate the percent reduction.

(viii) The parameter level, established in accordance with paragraph (i)(3) of §63.1427, incorporated herein as 7.2.1.

(ix) If epoxide emissions occur before the end of the ECO, the permittee shall maintain records of the time and duration of all such emission episodes that occur during the initial demonstration of batch cycle efficiency.

(2) The permittee shall maintain the following records as applicable from paragraphs (j)(2)(i) through (iv) of §63.1427.

(i) For each batch cycle, the product being produced and the product class to which it belongs.

(ii) For each batch cycle, the permittee shall record the time from the end of epoxide feed to the end of extended cook-out.

(iii) If epoxide emissions occur before the end of the ECO, the permittee shall maintain records of the time and duration of all such emission episodes.

[45CSR34 and 40CFR§63.1427(j), Emission Unit IDs (R703, R704, R705, R706, R707, R708)]

7.5. Reporting Requirements

7.5.1. The permittee shall submit a semi-annual report containing the following information:
(k) *Reporting requirements.* The permittee shall comply with the reporting requirements in this paragraph.

(3) The following information shall be provided in the semi-annual Periodic Report, as specified in §63.1439(e)(6).

(i) Reports of each batch cycle for which an ECO excursion occurred, as defined in §63.1427(i)(3)

(ii) Notification of each batch cycle when the time and duration of epoxide emissions before the end of the ECO, recorded in accordance with paragraph (j)(2)(v) of §63.1427 (Condition 7.4.2.(ii) of this permit), exceed the time and duration of the emission episodes during the initial epoxide emission percentage reduction determination, as recorded in paragraph (j)(1)(viii) of §63.1427 (Condition 7.4.1.(viii) of this permit)

[45CSR34 and 40CFR§63.1427(k)(3)(i)&(ii), 40CFR§63.1427(e)(6), Emission Unit IDs (R703, R704, R705, R706, R707, R708)]

7.5.2. The permittee shall comply with the reporting requirements for new polyether poly products as provided by §63.1427(l).
[45CSR34 and 40 CFR§63.1427(l)., **Emission Unit ID (R703, R704, R705, R706, R707, R708)]**

7.5.3. The permittee shall comply with the reporting requirements for polyether polyol product changes as provided by §63.1427(m).
[45CSR34 and 40 CFR§63.1427(m)., **Emission Unit ID (R703, R704, R705, R706, R707, R708)]**

7.5.4. The permittee shall comply with the reporting requirements for polyether polyol product manufacturing units as provided by §63.1439(e)(6)(i) through (viii) of this section
[45CSR34 and 40 CFR§63.1439(e)(6)., **Emission Unit ID (R703, R704, R705, R706, R707, R708)]**

7.5.5. The permittee shall comply with the reporting requirements for equipment leak provisions as provided by §63.1434(f).
[45CSR34 and 40 C.F.R. §63.1439(e)(6)(vii)., **Emission Unit IDs (R703, R704, R705, R706, R707, R708]**

7.6. Compliance Plan

7.6.1. Not Applicable

8.0 Source-Specific Requirements [Toxic Air Pollutant Sources, Incorporation of 45CSR27 Standards and Consent Order # CO-R27-97-17-A(94-21), Emission Point ID(s)(Listed Below 8.1.5 Tables)]

8.1. Limitations and Standards

8.1.1. Except as provided in Sections 3.2 and 3.3 of 45CSR27, the owner or operator of a plant that discharges or may discharge a toxic air pollutant into the open air in excess of the amount shown in Table A of 45CSR27 shall employ BAT at all chemical processing units emitting the toxic air pollutant: Provided, that any source or equipment specifically subject to a federal regulation or standard shall not be required to comply with provisions more stringent than such regulation or standard.
[45CSR§27-3.1., State-Enforceable Only]

8.1.2. All chemical processing units shall be properly instrumented to alert the operator of process upsets, leaks, and other abnormal discharges of toxic air pollutants into the air and the operator shall record all such incidents and the associated emissions estimated from direct measurements of toxic air pollutant concentration and/or calculations using other process measurements.
[45CSR§27-3.4., State-Enforceable Only, Process Unit IDs (~~Vinyl Methyl Ether,~~ N. Chas. Distribution, ~~Alkyl Alkanolamines,~~ Chemical Mixing, Specialty Surfactants, Oxide Adducts)]

8.1.3. Owners and operators of chemical processing units and/or wastewater treatment systems subject to 45CSR27 shall employ BAT to remove and control or destroy toxic air pollutants from wastewater at the source and/or apply BAT at the wastewater treatment plant to prevent or control the discharge to toxic air pollutants resulting from air stripping or evaporation: Provided, that this provision shall not be more stringent than any specifically applicable federal regulation or standard.
[45CSR§27-6.1., State-Enforceable Only]

8.1.4. Owners and operators of chemical processing units or facilities subject to the requirements of 45CSR27 shall employ BAT to prevent or control toxic air pollutant discharges in the loading and unloading of railcars and tank trucks with toxic air pollutants or material mixtures containing toxic air pollutants.
[45CSR§27-7.1., State-Enforceable Only]

8.1.5. The permittee shall implement "BAT" in accordance with the compliance plan agreed upon within consent order number, CO-R27-97-17-A(94-21), for the control of ethylene oxide, propylene oxide, and benzene emissions. As a result the following emission limits and LDAR program shall apply:

Table 8.1.5.a. Benzene Emissions

Source ID	Source Description	Emission Point ID	Pre-Control Emissions	Allowable Emissions	Allowable Emissions
~~Vinyl Methyl Ether~~			(lb/yr)	(lb/hr)	(lb/yr)
~~Vessels 7001 and 7002~~	~~Process Vent to Scrubber~~	~~E 136~~	~~174~~	~~1.3~~	~~174~~
~~E 135(E 132, E 133)~~	~~Vent Header~~	~~E 134, No. 5 Furnace~~	~~<1500~~	~~<2~~	~~<150~~
~~Tank 1102~~		~~T 1102~~	~~<10~~	~~<1~~	~~<10~~
~~Tank 1145~~		~~T 1145~~	~~<10~~	~~<1~~	~~<10~~
~~Tank 1225~~		~~T 1225~~	~~<10~~	~~<1~~	~~<10~~

~~Fugitives~~		~~NA~~	~~<800 *~~	~~<1*~~	~~<500*~~
~~Secondary Emissions~~		~~NA~~	~~<50*~~	~~<1*~~	~~<50*~~
~~Subtotal~~			~~<2554~~	~~<8~~	~~<904~~
N. Chas. Distribution Terminal					
Tank 9003	Floating Roof Tank	T-9003	<1	<1	<1
~~**Alkyl Alkanolamines**~~					
~~Secondary Emissions~~		~~NA~~	~~<50*~~	~~<1*~~	~~<50*~~
~~**Total**~~			~~<2605~~		~~<955~~
Benzene R27 "BAT" Threshold = **1000** lb/yr					

*** Fugitive emissions controlled by work practices and estimated empirically. The fugitive emission numbers are provided for informational purpose.**

Table 8.1.5.c. Propylene Oxide Emissions

Source ID	Control Description	Emission Point ID	Pre-Control Emissions	Allowable Emissions	Allowable Emissions
Oxide Adducts			(lb/yr)	(lb/hr)	(lb/yr)
#1 Reactor	Extended Cookout	E-703	17,600	0.6	200
#2 Reactor	Extended Cookout	E-704	7,100	25.8	263
#4 Reactor	Extended Cookout	E-705	13,800	32.6	1,094
#5 Reactor	Extended Cookout	E-706	7,100	18.2	263
#6 Reactor	Extended Cookout	E-708	9,100	15.0	979
#7 Reactor	Extended Cookout	E-707	12,800	16.4	1,011
			67,500		3,810
#1Drop Tank	Extended Cookout	E-703A	9,400	0.6	198
#2DropTank	Extended Cookout	E-704A	6,800	6.1	189
#4 Drop Tank	Extended Cookout	E-705A	1,100	7.8	1023
#5 Drop Tank	Extended Cookout	E-706A	6,800	5.1	189
#6 Drop Tank	Extended Cookout	E-708A	1,700	4.1	289
#7 Drop Tank	Extended Cookout	E-707A	2,500	4.7	600
			28,300		2,488
#1 Treatment	Extended Cookout	E-703B	20,000	1.2	407
#2 Treatment	Extended Cookout	E-704B	17,600	21.9	478
#4 Treatment	Extended Cookout	E-705B	800	6.9	954
#5 Treatment	Extended Cookout	E-706B	17,600	15.7	498
#6 Treatment	Extended Cookout	E-708B	400	1.0	470
#7 Treatment	Extended Cookout	E-707B	900	1.2	217
					3,024
			153,100		9,322

#1 Double Valve and Vent	Double Valve and Buffer	E-720	98	0	0
#2 Double Valve and Vent	Double Valve and Buffer	E-721	43	0	0
#4 Double Valve and Vent	Double Valve and Buffer	E-722	52	0	0
#5 Double Valve and Vent	Double Valve and Buffer	E-723	28	0	0
#6 Double Valve and Vent	Double Valve and Buffer	E-724	20	0	0
#7 Double Valve and Vent	Double Valve and Buffer	E-725	13	0	0
Wastewater Secondary Emissions		700	134*	0*	0*
Fugitive Emissions	LDAR, Subpart H Part 63	700 Fug.	4,295*	-	1,000*
Propylene Oxide R27 "BAT" Threshold = 5000 lb/yr			**157,783**		**10,322**
Treatment represents the handling of material after it leaves the drop tanks, it does not refer to a single source					

*** Fugitive emissions controlled by work practices and estimated empirically. The fugitive emission numbers are provided for informational purpose.**

Table 8.1.5.d. Ethylene Oxide Emissions

Source ID	**Control Description**	**Emission Point ID**	**Pre-Control Emissions**	**Allowable Emissions**	**Allowable Emissions**
Oxide Adducts			(lb/yr)	(lb/hr)	(lb/yr)
#2 Reactor	Extended Cookout	E-704	5,300	0.18	14
#4 Reactor	Extended Cookout	E-705	140	0.18	1
#5 Reactor	Extended Cookout	E-706	5,300	0.18	9
#6 Reactor	Extended Cookout	E-708	310	0.01	<1
#7 Reactor	Extended Cookout	E-707	470	0.02	<1
			11,520		26
#2DropTank	Extended Cookout	E-704A	120	0.03	15
#4 Drop Tank	Extended Cookout	E-705A	20	0.03	<1
#5 Drop Tank	Extended Cookout	E-706A	120	0.03	14
#6 Drop Tank	Extended Cookout	E-708A	10	<0.01	<1
#7 Drop Tank	Extended Cookout	E-707A	20	<0.01	<1
			290		30
#2 Treatment	Extended Cookout	E-704B	320	<0.01	<1
#4 Treatment	Extended Cookout	E-705B	15	<0.01	<1
#5 Treatment	Extended Cookout	E-706B	320	<0.01	<1
#6 Treatment	Extended Cookout	E-708B	5	<0.01	<1
#7 Treatment	Extended Cookout	E-707B	2	<0.01	<1
			662		2
			12,472		58

#2 Double Valve and Vent	Double Valve and Buffer	E-721	90	0	0
#4 Double Valve and Vent	Double Valve and Buffer	E-722	35	0	0
#5 Double Valve and Vent	Double Valve and Buffer	E-723	60	0	0
#6 Double Valve and Vent	Double Valve and Buffer	E-724	54	0	0
#7 Double Valve and Vent	Double Valve and Buffer	E-725	38	0	0
Source ID	**Control Description**	**Emission Point ID**	**Pre-Control Emissions**	**Allowable Emissions**	**Allowable Emissions**
			(lb/yr)	(lb/hr)	(lb/yr)
Wastewater Secondary Emissions		700	30*	0	0
Fugitive Emissions	LDAR, Subpart H Part 63	700 Fug.	3271*	-	1500*
~~**Alkyl Alkanolamines**~~					
~~EO Scrubber~~	~~Water Scrubber~~	~~E-805~~	~~253~~	~~Cond. 6.1.7. incorporates limit through 45CSR13 permit number R13-1470B 2.18 lb/hr and 30 lb/yr~~	
~~Wastewater Secondary~~			~~<30*~~	~~<0.1*~~	~~<20*~~
~~Fugitive Emissions~~	~~LDAR, Subpart H Part 63~~	~~800~~	~~1,534*~~		~~750*~~
			~~1,817~~		~~<790~~
EO Distribution Header					
Fugitive Emissions	LDAR, Subpart H Part 63				
Ethylene Oxide R27 "BAT" Threshold = 500 lb/yr			**17,867**		**2,348**
Treatment represents the handling of material after it leaves the drop tanks, it does not refer to a single source					

*** Fugitive emissions controlled by work practices and estimated empirically. The fugitive emission numbers are provided for informational purpose.**

e. Fugitive Emission Requirements

All owners and operators subject to the requirements of 45CSR27 shall, by application of BAT, prevent and control fugitive emissions to the air of toxic air pollutants as a result of leakage from equipment in toxic air pollutant service including but not limited to, pump seals, compressor seals, valves, sampling connections, open-ended lines, safety relief valves, and flanges. In no event shall any equipment standard, program, or work practice less stringent than required under 40CFR61, Subpart V be deemed to represent BAT for control of toxic air pollutant emissions: Provided, that any source or equipment specifically subject to a federal regulation or standard shall not be required to comply with provisions more stringent than such federal regulation and standard. Equipment to be used in toxic air pollutant service installed after the effective date of 45CSR27shall, to the maximum extent possible, be designed and operated so as to prevent leaks of toxic air pollutants.

The Company shall implement a Leak Detection and Repair Program ("LDAR") for equipment in TAP service. The LDAR program shall meet the requirements of 40CFR63, subpart H ("subpart H"). The Company agrees to comply with the provisions of subpart H [except as excluded by 45 CSR 27 – 2.11 "Toxic Air Pollutant Service" means for the purpose of 45CSR27, that a piece of equipment such as a pump, valve or flange contains or contacts a process fluid containing 10% or more by weight of a toxic air pollutant]. For the purposes of

Consent Order CO-R27-97-17-A(94-21), all manufacturing processes subject to LDAR requirement for 45 CSR 27 have previously been deemed to be Group 1 sources under the above referenced subpart H. The Company was required to commence implementation and comply with LDAR equipment standards required under Phase I of subpart H on or before December 1992. The Company shall implement Phase II and Phase III as prescribed in subpart H. The Director hereby determines compliance with subpart H to constitute BAT. All notices and reports to be submitted to the United States Environmental Protection Agency ("USEPA") under subpart H shall be submitted to the Director (and the USEPA Administrator, if appropriate) in accordance with the requirements of subpart H and CO-R27-97-17-A(94-21). ~~There are no components containing more than 5% TAP by weight in PA ID 105; consequently 45CSR21, Section 37 LDAR will be implemented for this source, by July 1, 1997.~~ Because the emissions from PA ID 050 and PA ID 103 are low, and because benzene and formaldehyde emissions are required by this consent order to be maintained below the 45CSR27 applicability level, LDAR is not required for these sources.
[45CSR§27-4.1., CO-R27-97-17-A(94-21), III.2, III.3, State-Enforceable Only]

8.1.6 The Company shall operate all emission control equipment at all times when the production unit is in operation, excepting only periods of emergency repairs for the control equipment and unanticipated control equipment failure for reasons beyond the reasonable control of the Company. In the event that the control equipment is inoperable, the production unit shall be shut down as expeditiously as possible. Recognizing the potentially reactive nature of the production unit(s) products, however, in-process material may continue to be processed. The Company shall not begin operation of the production unit when the control equipment is not in operation without being granted a variance by the Director.
[CO-R27-97-17-A(94-21), IV.11, State-Enforceable Only]

8.2. Monitoring Requirements

8.2.1. To demonstrate compliance with Condition 8.1.5.e. of this permit, written records shall be maintained that identify all pumps, compressors, pressure relief valves, valves, sampling connections, open-ended lines, and flanges of a chemical processing unit that are in toxic air pollutant service. These records shall record the results of all monitoring and inspections, emissions control measures applied and the nature, timing, and results of repair efforts in accordance with 40CFR63, Subpart H.
[45CSR§27-10.3., State-Enforceable Only, 45CSR§30-12.7]

8.2.2. Except as provided below, compliance with the requirements of Condition 8.1.5 for the Oxide Adducts Manufacturing Plant shall be demonstrated by adhering to the monitoring, recordkeeping, and reporting provisions in accordance with Section 7.0 of this permit.

(i). Ethylene oxide (EO) and propylene oxide (PO) emissions from the double valve and vent system shall continue to be eliminated through the use of a work practice defined as the double valve and buffer system, which utilizes nitrogen pressure placed between the valves sufficient enough to then push any remaining EO or PO into the process.
[45CSR27, 45CSR34, 40CFR63, Subpart PPP]

8.2.3. Reserved ~~To demonstrate compliance with toxic air pollutant requirements of Condition 8.1.5. for the AA Manufacturing Plant, the permittee shall adhere to the monitoring, recordkeeping, and reporting provisions in accordance with Section 6.0 of this permit.~~
~~[45CSR27, 45CSR34, 40CFR63, Subpart F, G, and H, 45CSR13, permit number R13-1470B]~~

8.2.4. Reserved ~~Compliance with Condition 8.1.5. for the VME Manufacturing Plant, shall be demonstrated by adhering to the monitoring, recordkeeping, and reporting provisions in accordance with Section 11.0 of this permit.~~
~~**[45CSR27]**~~

8.2.5. To demonstrate compliance with 45CSR27 "BAT" requirements for emissions of toxic air pollutants from the Specialty Surfactants Plant, the permittee shall adhere to the limitations, monitoring, recordkeeping, and reporting provisions in accordance with Section 5.0 of this permit.
[45CSR13, Permit Number R13-1517B, CO-R27-97-17-A(94-21), I.5, State-Enforceable Only]

8.2.6. Tank 9003 located within the North Charleston Distribution Terminal (NCDT) shall comply with the benzene emission limitations of 8.1.5. by maintaining documentation via material safety data sheets to indicate that no material is stored which contains 1% wt. benzene or greater.
[**CO-R27-97-17-A(94-21), I.1 and I.4., State-Enforceable Only]**

8.2.7. To demonstrate compliance with Regulation 27 Consent Order provisions for benzene and formaldehyde, the permittee must calculate emissions for each calendar year and submit a certification to the WVDAQ by July 1 of each year whether the Regulation 27 BAT threshold amounts were met.
[**CO-R27-97-17-A(94-21), I.1 and I.4., State-Enforceable Only]**

8.2.8. To demonstrate compliance with the Regulation 27 Consent Order provisions for wastewater, the permittee shall comply with the process wastewater provisions of applicable standards from 40 CFR 63, Subparts G and PPP or 40 CFR 63, Subpart FFFF, as applicable under §63.2485.
[**CO-R27-97-17-A(94-21), State-Enforceable Only]**

8.3. Testing Requirements

8.3.1. At such reasonable times as the Director may designate, the owner or operator of any chemical processing unit may be required to conduct or have conducted tests to determine the compliance with 45CSR27. Such tests shall be conducted in such manner as the Director may specify or approve and be filed on forms and in a manner specified by the Director. The Director, or his duly authorized representative, may at his option witness or conduct such tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment, and the required safety equipment such as scaffolding, railing, and ladders to comply with generally accepted good safety practices.
[45CSR§27-10.1., State-Enforceable Only]

8.4. Recordkeeping Requirements

8.4.1. N/A

8.5. Reporting Requirements

8.5.1. Upon the discovery of any TAP not addressed in CO-R27-97-17-A(94-21) and the emissions of which is not known as of the consent order date, the Company shall notify the Director in writing within fifteen (15) days of such discovery. Unless the Director determines these emissions to be insignificant, the Company shall submit a compliance program for control of such emissions within sixty (60) days of the date of notification. Upon a determination by the Director that the proposed compliance program represents BAT, the Director shall, in his or her discretion, consider such program for inclusion as an amendment to the above referenced order or entry as a separate consent order and shall determine the conditions to be met for approval and entry of such consent order or amended consent order. This provision shall not be construed to limit the Director's ability to initiate any enforcement action prescribed by the Code as a result of deficiencies, errors, or omissions in the prior compliance plan submitted by the Company.
[CO-R27-97-17-A(94-21), III.4, State-Enforceable Only]

8.5.2. The emission to the air of any toxic air pollutant resulting from an abnormal release or spill in excess of the following amounts shall be reported to the Director or his authorized representative not later than 24-hours after the chemical processing unit owner/operator has knowledge of such emission:

10.4.a. For ethylene oxide, and vinyl chloride, one (1) pound

10.4.b. For acrylonitrile and butadiene, ten (10) pounds

10.4.c. For all other toxic air pollutants, fifty (50) pounds.

The permittee shall file a written report with the Director stating the details of all such incidents resulting in the emission of more than fifty (50) pounds of any toxic air pollutant within seven (7) days of the occurrence. The owner/operator shall submit to the Director, at his request, records of all abnormal toxic air pollutant discharges to the air.
[45CSR§27-10.4., State-Enforceable Only]

8.5.3. Any period of failure or inoperability of air pollution control equipment required by 45CSR27 shall be reported to the Director not later than 24-hours after the owner/operator has knowledge of such failure. Such reports shall be made in conjunction with necessary requests for variances as provided under 45CSR§27-12.
[45CSR§27-10.5., State-Enforceable Only]

8.6. Compliance Plan

N/A

9.0 Source-Specific Requirements [Volatile Organic Compound Sources and Incorporation of 45CSR21 Standards and Consent Order # CO-R21-98-22, ID(s)(Listed in Attachment C)]

9.1. Limitations and Standards

The permittee shall implement an Alternate Emissions Reduction Plan (AERP) in accordance with the compliance plan agreed upon within consent order number, CO-R21-98-22, and any amendments thereof for the control of VOCs. As a result the following emission limits and LDAR program shall apply:

9.1.1. The permittee shall, on and after June 6, 1998, reduce VOC emissions from the sources listed in Attachment A of CO-R21-98-22 as amended by UCC letter dated October 10, 2006 from J. L. Blatt, UCC Responsible Care Leader to John A Benedict, Director of WVDAQ, and incorporated herein as Attachment C; and shall continue to comply with such emissions reduction requirements and the emission limits set forth in Attachment A of CO-R21-98-22, as revised, as expressedly provided by the referenced consent order. Compliance with the emission limits set forth in CO-R21-98-22, as revised, and included herein as Attachment C shall be demonstrated by test or monitoring data, approved emission factors, material balances, and/or representative calculations in accordance with 45CSR21.
[CO-R21-98-22, III.1. State-Enforceable Only]

9.1.2. Unless otherwise expressly exempted from Leak Detection and Repair ("LDAR") requirements in CO-R21-98-22, the COMPANY hereby agrees to implement and maintain LDAR programs for the reduction of fugitive VOC emissions in all FACILTY manufacturing process units subject to 45CSR21 Section 40 producing a product or intermediate or final, in excess of 1000 megagrams (1100 tons) per year in accordance with the applicable methods and criteria of 45CSR21 Section 37 or alternative procedures approved by the DIRECTOR. This requirement shall apply to all units irrespective of whether or not such units produce as intermediates or final products, substances on the list contained within 40CFR60, 40CFR61, or 40CFR63. The permittee will follow the applicable requirements of 45CSR§21-37 for LDAR requirements for all equipment except for the North Charleston Distribution Terminal, the Chemical Mixing Area, and the fugitive emission components associated with the equipment listed below:

Process Unit	Process ID	Equipment for which LDAR monitoring is not required
~~Chemical Mixing~~	~~050~~	~~Entire Unit~~
~~North Charleston~~	~~031~~	~~Entire Unit~~
Specialty Surfactants	1000	Raw material tanks 8332, 8354, 8333, 8353, 8363, Intermediate tanks 8323, 8343, 8344, 8324, 8382 Neat products tanks 8373, aqueous product tanks 8364 and 8383, and the X-200 process system including the 8700 reactor and tank 8381
Oxide Adducts	700	Product tanks and Drop tanks 9614, 9616, 9617, 9624, And 9627
Polyvinyl Acetate GB	225	Fugitive Components in molten PVA service downstream of final dryer

(excluding components subject to Regulation 27 Consent Order)

In addition, those components in Specialty Surfactants Process area 1000 that are in light liquid service less than 300 hours per year will be subject only to the heavy liquid LDAR.

Although the above listed units are exempted from the frequency of testing as described in 45CSR§21-37, LDAR testing of these units will be required every three years, upon request by the Director or his or her duly authorized representative. Waiver or rescheduling of LDAR testing every three years may be granted by the Director if a written request and justification are submitted by the permittee. Units exempted from LDAR monitoring as required by 45CSR§21-37, are not exempted from testing which may be required under any other applicable State or Federal regulations, orders or permits. The Director may periodically require verification by the Permittee that maintenance and repair procedures associated with approved exemptions are continued and practiced.
[CO-R21-98-22, III.2. State-Enforceable Only]

9.1.3. At all times, including periods of start-up, shutdown, and malfunction, the permittee shall maintain and operate the VOC emitting sources and associated air pollution control devices subject to the provisions of CO-R21-98-22 in a manner consistent with good air pollution control practices for minimizing emissions. Compliance with the emission limits set forth in Attachment C of this Title V Permit shall be demonstrated at all times unless exception periods are provided for in accordance with this paragraph. The permittee shall comply with 45CSR§21-5.2 and 45CSR§21-9.3 with respect to all periods of non-compliance with the emission limitations and emission reduction request set forth in Attachment C resulting from unavoidable malfunctions of equipment. In the event that the emission limitation and/or emission reduction requirements for a source listed in Attachment C cannot be met during route start-up, shutdowns, or routine maintenance activities, the permittee shall, within 180 days of June 6, 1998, submit an operation and VOC emissions mitigation plan for such periods. This plan is included within the Title V Permit as Attachment D. The Director may require reasonable revisions to the permittee's plan if he or she finds that routine start-up, shutdown, or maintenance resulting in excess VOC emissions not addressed by the plan occur or that the plan fails to provide for operation in a manner consistent with good air pollution control practices for minimizing emissions. VOC emissions and associated control procedures conforming to the permittee's plan submitted under this provision shall not be subject to the variance approval process of 45CSR§21-9.3 provided that the permittee maintains test, monitoring, operating, and maintenance records containing sufficient information and detail to enable the permittee and the Director to verify compliance with the plan and associated VOC emission control requirements. These records shall be maintained on-site for not less than three (3) years and be made available to the Director or his or her authorized representative upon request.
[CO-R21-98-22, III.3. State-Enforceable Only]

9.1.4. The permittee agrees that construction or modification of any emission source having maximum theoretical emissions of VOC equaling or exceeding six pounds per hour after May 1, 1996 shall require the prior approval by the Director of an emission control plan that meets the definition of Reasonably Available Control Technology (RACT) on a case-by-case basis for both fugitive and non-fugitive VOC emissions from such source. All RACT control plans for sources constructed or modified (as defined herein) after May 1, 1996 shall be embodied in a permit in accordance with 45CSR13 or 45CSR30. Physical changes to or changes in the method of operation of an existing emission source listed or required to be listed in Attachment C which do not result in an increase in its potential to emit VOCs in a cumulative amount of two pounds per hour or five tons per year or more (with cumulative accounting commencing on June 6, 1998) shall not require submittal of a RACT plan, provided that, the permittee continues to comply with its facility wide VOC emission reduction requirement (RACM or AERP). For existing sources or emission units with current maximum theoretical emissions below the threshold of six pounds per hour, the permittee shall not be required to submit a RACT

plan for that particular source, if a modification causes an increase in the maximum emissions that results in the source exceeding the six pound per hour level for the first time, as long as the increase is less than the two pounds per hour or five tons per year.
[CO-R21-98-22, III.7. State-Enforceable Only]

9.1.5. Reports of excess emissions. -- Except as provided in 45CSR§21-9.3., the owner or operator of any facility containing sources subject to 45CSR§21-5. shall, for each occurrence of excess emissions expected to last more than 7 days, within 1 business day of becoming aware of such occurrence, supply the Director by letter with the following information:

a. The name and location of the facility;

b. The subject sources that caused the excess emissions;

c. The time and date of first observation of the excess emissions; and

d. The cause and expected duration of the excess emissions.

e. For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and

f. The proposed corrective actions and schedule to correct the conditions causing the excess emissions.

[45CSR§21-5.2]

9.1.6. Variance. -- If the provisions of this regulation cannot be satisfied due to repairs made as the result of routine maintenance or in response to the unavoidable malfunction of equipment, the Director may permit the owner or operator of a source subject to this regulation to continue to operate said source for periods not to exceed 10 days upon specific application to the Director. Such application shall be made prior to the making of repairs and, in the case of equipment malfunction, within 24 hours of the equipment malfunction. Where repairs will take in excess of 10 days to complete, additional time periods may be granted by the Director. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the permittee and approved by the Director. During such time periods, the permittee shall take all reasonable and practicable steps to minimize VOC emissions.
[45CSR§21-9.3]

9.1.7. In the event that the DAQ finds that a violation of the National Ambient Air Quality Standards (NAAQS) for ozone (that were in effect on or before May 1, 1996) has occurred after the effective date of Consent Order CO-R21-98-22, the permittee agrees to submit to the DAQ a plan within one hundred eighty (180) days of notification of such a finding for complete, FACILITY-wide implementation of RACT requirements and shall fully implement such plan within two (2) years of its approval by the DAQ.
[CO-R21-98-22, III.9. State-Enforceable Only.]

9.1.8. Unless granted a variance pursuant to 45CSR§21-9.3, the permittee shall operate all emission control equipment for those emission sources listed in Attachment C, at all times when the production unit is in operation or when any VOC emitting activity is occurring. In the event that the control equipment is inoperable, the production unit shall be shut down or the activity shall be discontinued as expeditiously as possible.
[CO-R21-98-22, IV.7. State-Enforceable Only.]

9.1.9 The permittee shall operate all solvent metal cleaners in accordance with the provisions of 45CSR§§21-30.3.a.4 through 30.3.a.9 as follows:

4. Provide a permanent, legible, conspicuous label, summarizing the operating requirements;

5. Store waste solvent in covered containers;

6. Close the cover whenever parts are not being handled in the cleaner;

7. Drain the cleaned parts until dripping ceases;

8. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure that does not exceed 10 pounds per square inch gauge (psig); and

9. Degrease only materials that are neither porous nor absorbent.

[State Enforceable Only; 45CSR§21-30.3.a.4 through §30.3.a.9, Equipment ID (Building 307 Shop)]

9.1.10 State Rule 45CSR21, stage I vapor recovery requirements apply to the permittee's underground gasoline storage tank as follows:

45CSR§21-23.1.c. Any gasoline dispensing facility with a throughput of less than 38,000 L (10,000 gal) per month is subject only to the provisions of sections 45CSR§21-23.2.a.1. and 45CSR§21-23.3.

45CSR§21-23.2. Standards.

45CSR§21-23.2.a. The owner or operator of each gasoline dispensing facility subject to this section 23 shall comply with the following requirements:

1. All gasoline storage vessels at gasoline dispensing facilities shall be loaded by submerged fill;
[45CSR§21-23.2.a.1., Equipment ID (T-1490)]

9.2. Monitoring, Testing, Recordkeeping, and Reporting Requirements

9.2.1. The monitoring requirements specified within section 5.0 for Specialty Surfactants, ~~6.0 for Alkyl Alkanolamines,~~ 7.0 for Oxide Adducts, and 10.0 for Gum Base, ~~and 11.0 for Vinyl Methyl Ether~~ of this permit shall also demonstrate compliance with the requirements of section 9.1 above.
[45CSR13, Permit Number R13-1517B, ~~R13-1470B~~, 40CFR63, Subpart PPP, Subpart H,F,G]

9.2.2. In accordance with 45CSR21the permittee shall keep the following records pertaining to its underground gasoline tank.:

45CSR§21-23.3. Recordkeeping. -- The owner or operator of each gasoline dispensing facility subject to this section 23 shall maintain daily records showing the quantity of all gasoline delivered to the site. These records shall be retained for at least 3 years in a readily accessible location and shall be made available to the Director upon verbal or written request.

[45CSR§21-23.3., Emission Unit ID (T-1490)]

9.3. Compliance Plan

9.3.1. N/A

10.0 Source-Specific Requirements [Gum Base Plant (Polyvinyl Acetate, PVA) - ~~Gum Base Plant~~ (See Section 1.0 for Gum Base Plant ~~PVA~~ Equipment List)]

10.1. Limitations and Standards

10.1.1. Particulate matter emissions from the Y-228 packaging system shall not exceed 2.28 lb/hr PM from either emission point E-228 or E-229.
[45CSR§7-4.1, Emission Point ID (E-228, E-229)]

10.1.2. Particulate emissions from emission points E-228 and E-229 shall not exceed an opacity of 20%. The 20% opacity provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.1 & 3.2, Emission Point ID (E-228, E-229)]

10.1.3. The following point sources, which emit volatile organic compounds (VOCs) are limited in accordance with 45CSR21 and Consent Order # CO-R21-98-22 within section 9.0 of the Title V permit: T-3021, T-3030, T-3031, T-3080, C-650R. These sources along with others feed the vent header system.
[45CSR§21-40, CO-R21-98-22, Emission Unit ID (T-3021, T-3030, T-3031, T-3080, C-650R)]

10.1.4. ~~The permittee has identified the PVA Gum Base Plant as being subject to the 40CFR63, Subpart FFFF "Miscellaneous Organic NESHAP" and therefore shall be in compliance with all applicable requirements of this Federal Regulation by its compliance date of May 10, 2008. The permittee is required to submit a "Notification of Compliance Status" (NOCS) Report by October 7, 2008 in accordance with 40CFR§63.2520(d)(1).~~
~~[40CFR63, Subpart FFFF, 45CSR34]~~

MON MACT. The permittee shall comply with the applicable sections of the general requirements for emission limits, work practice standards and compliance requirements as specified by §63.2450. In accordance with the NOC status report dated October 8, 2008 the permittee identified the following affected sources along with their respective requirements:

- Storage vessel T-3014 shall be operated as Group 2 as defined by the MON Rule.
- Tank truck loading rack (Rack ID L-221) used to load organic liquids containing hazardous air pollutants shall be operated as a Group 2 transfer operation as defined by the MON Rule.

[45CSR34, 40 C.F.R. §63.2450]

~~10.1.5. The permittee shall submit a complete application for significant modification to the Title V permit, which incorporates the information submitted within the Notification of Compliance Status (NOCS) Report required by subpart FFFF. The Title V modification application shall be submitted by October 7, 2008, which corresponds to the maximum time allowed for NOCS submittal under this NESHAP Regulation.~~

~~This deadline for submittal of the Title V Permit modification application may be changed by mutual agreement between the permittee and the Director. The permittee who wishes to request a change in a deadline shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The~~

~~permittee shall include in the request whatever information he or she considers useful to convince the Director than an adjustment is warranted.~~
~~**[45CSR§30-6.5.b., 45CSR§30-12.7.]**~~

10.1.5. **MON MACT.** The permittee shall comply with the applicable general provisions of 40 C.F.R.63 Subpart A as specified by 40 C.F.R. §63.2540 and Table 12 of Subpart FFFF.
[45CSR34, 40 C.F.R. §63.2540; 40 C.F.R. § 63 Table 12 to Subpart FFFF]

10.1.6. **MON MACT.** The permittee shall comply with the applicable continuous process vent standards of the MON MACT as specified by 40 C.F.R. §63.2455.

As indicated within NOC status report dated October 8, 2008, all Group 1 continuous process vents within the Gum Base Plant shall be routed to the island powerhouse, to either boiler B25 or B27 via a closed vent system. In accordance with the exceptions granted within 40 C.F.R. 63, Subpart SS, the permittee shall introduce the process vent gas into the combustion flame zone. It was also noted that because the boilers are greater than 150 MMBtu/hr, heat input, hence, performance testing and continuous monitoring are not required.
[45CSR34, 40 C.F.R. §63.2455, §63.988(b)(2)(ii), §63.988(c), Emission Units (C-501, C-650R, Y-520, Y-525)]

10.1.7. **MON MACT.** The permittee shall comply with the applicable storage tank standards of the MON MACT as specified by 40 C.F.R. §63.2470.

As specified by the permittee's NOC status report dated October 8, 2008 the following surge control vessel requires control to the same level as that for Group 1 storage vessels as specified by 40 C.F.R. §63.2450(r).

Tank (T-3080) Surge Control Vessel
The T-3080 tank vent shall be routed to the island powerhouse, to either boiler B25 or B27 via a closed vent system. In accordance with the exception granted within 40 C.F.R. 63, Subpart SS, the permittee shall introduce the process vent gas into the combustion flame zone. It was also noted that because the boilers are greater than 150 MMBtu/hr heat input, hence, performance testing and continuous monitoring are not required.
[45CSR34, 40 C.F.R. §63.2470, §63.985(b)(2)(i), Emission Units (T-3080)]

10.1.8. **MON MACT.** The permittee shall comply with the standards for control of HAPs from Group 1 Storage Vessels as specified by 40 C.F.R. §63.2470.

Tank (T-9011) Storage Vessel
As indicated within the NOC report the T-9011 tank shall comply with the MON by implementing the requirements of 40 C.F.R. 63, Subpart WW for internal floating roof tanks. In addition to the design requirements of Subpart WW the permittee is required to conduct annual visual inspections through fixed roof openings and conduct an internal inspection each time the tank is completely emptied and degassed or at least once every 10 years.
[45CSR34, 40 C.F.R. §63.2470, §63.1062, Emission Units (T-9011)]

10.1.9. **MON MACT.** The permittee shall comply with the applicable equipment leak standards of the MON MACT as specified by 40 C.F.R. §63.2480(b), subpart H of 40 C.F.R. 63. As a result the permittee has defined the following schedule within their NOC report.

Phase	Planned Schedule for Implementation On or Before
Phase I – Beginning on the compliance date	May 10, 2008
Phase II – Beginning no later than 1 year after the compliance date	May 10, 2009
Phase III – Beginning no later than 2 ½ years after the compliance data	November 8, 2010

[45CSR34, 40 C.F.R. §63.2480]

10.1.10. **MON MACT.** The permittee shall comply with the applicable provisions for wastewater as specified by 40 C.F.R. §63.2485. As a result, the permittee shall develop and maintain a maintenance wastewater plan that is implemented per §63.2485(a) and §63.105, except as specified in §63.2485
[45CSR34, 40 C.F.R. §63.2485]

10.1.11. **MON MACT.** The permittee shall prepare and implement a startup, shutdown, and malfunction (SSM) plan to minimize HAP emissions for the Gum Base Plant. This plan shall include, but may not be limited to malfunctions that cause Boilers 25 and 27 to not be available to control emissions from Group 1 continuous process vents and surge control vessel (T3080).
[45CSR34, 40 C.F.R. §63.6(e)(3)]

10.2. Monitoring Requirements

10.2.1. The Gum Base (PVA) unit shall monitor the number of hours operated when the Island Powerhouse is not available to receive process vent gases.
[45CSR§21-40, CO-R21-98-22, 45CSR§30-5.1.c., Emission Unit ID (#25 Boiler, #27 Boiler)]

10.2.2. To demonstrate compliance with Condition 10.1.2, the permittee shall conduct monthly visual emission checks of the baghouse filter vents (E-228 and E-229) in order to assess whether visible emissions are present. If visible emissions are noted and corrective action is not taken within 72 hours opacity must be quantified within 5 days of the original observation in accordance with 45SCR§7A-2..
[45CSR§7-3.1 & 3.2, 45CSR§30-5.1.c., Emission Point ID (E-228, E-229)]

10.3. Testing Requirements

N/A

10.4. Recordkeeping Requirements

10.4.1. Production records shall be maintained, kept up to date, and made readily available to verify the type and amount of products produced within the Gum Base (PVA) unit.
[45CSR§30-5.1.c]

10.4.2. Compliance with particulate matter emission limits in Condition 10.1.1 shall be demonstrated by maintaining readily available records of the amount of material collected by particulate filters C-218 and C-219. The permittee shall also keep records of all maintenance activities conducted on this control equipment.
[45CSR§7-4.1, 45CSR§30-5.1.c., Emission Point ID (E-228, E-229)]

10.4.3. The permittee shall maintain, keep up to date, and make readily available the visual emission checks and/or opacity test results as required by 10.2.2.
[45CSR§7-3.1 & 3.2, 45CSR§30-5.1.c., Emission Point ID (E-228, E-229)]

10.4.4. The Gum Base (PVA) unit shall maintain an operating record corresponding with 10.2.1 to document all times when the Gum Base (PVA) unit is operating and the Island Powerhouse is not available to receive process vent gases. This documentation shall be summarized into monthly reports, which tabulate the duration of the excess emission scenario on a calendar year basis.
[45CSR§21-40, CO-R21-98-22, 45CSR§30-5.1.c., Emission Unit ID (#25 Boiler, #27 Boiler)]

10.4.5. **MON MACT.** The permittee shall maintain the following records to demonstrate compliance with MON requirements and this permit.

● Maintain supporting information used to determine MON initial applicability to process vents, storage vessels, equipment leaks, transfer operations, heat exchangers, process wastewater and in-process aqueous liquid streams.

● Maintain operating scenarios and calculations of uncontrolled hazardous air pollutant emissions for process vents used to prepare the NOCS.

● Maintain records of monitoring and inspections results for equipment component leak detection and repair as required by 40 CFR 63, Subpart H.

● Maintain a record each time a safety device is opened to the air that contains hazardous air pollutants to avoid unsafe conditions.

● Maintain a copy of the following reports and notifications:
- Notice of initial notification
- Notification of compliance status report
- Semiannual compliance reports including information regarding process changes as specified by §63.2520(e)(10).

● Maintain a record of startup, shutdown, and malfunction events.

[45CSR34, 40C.F.R.§63.2525]

10.4.6. **MON MACT**. In order to demonstrate compliance with the internal floating roof requirements specified within Title V permit condition 10.1.9,(Tank 9011) the permittee shall maintain records of tank dimensions and capacity, maintain records of inspection results, and keep records of floating roof landings, when roof refloated and whether refloating was continuous.
[45CSR34, 40 C.F.R. §63.2470, §63.1065, Emission Units (T-9011)]

10.5. Reporting Requirements

10.5.1. **MON MACT**. The permittee shall submit a semiannual compliance report that includes the information specified by §63.2520(e) and the results of equipment leak monitoring and repair conducted per 40 CFR 63 Subpart H.
[45CSR34, 40 C.F.R. §63.2520]

10.5.3. **MON MACT.** In order to demonstrate compliance with the internal floating roof requirements specified within Title V permit condition 10.1.9 (Tank 9011), the permittee shall notify WVDAQ at least 30 days prior to planned tank internal inspections, provide regulatory notification prior to refilling storage vessel, and report failed inspections in semi-annual compliance reports. If an inspection is unplanned and the permittee could not have known about the inspection 30 days in advance, then the permittee shall notify the Director at least 7 days before the inspection. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including written documentation may be in writing and so that it is received by the Director at least 7 days before the inspection.
[45CSR34, 40 C.F.R. §63.2470, §63.1066, Emission Units (T-9011)]

10.6 Compliance Plan

N/A

~~11.0~~ Reserved ~~Source-Specific Requirements [Vinyl Methyl Ether, VME Plant (See Section 1.0 for VME Equipment List)]~~

~~11.1. Limitations and Standards~~

~~11.1.1. The permittee shall not allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit, C-5F, which is greater than ten (10) percent opacity based on a six minute block average. Compliance with the visible emission requirement shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9. Due to this source meeting the exemption criteria of 45CSR§2-11.1 the Method 9 opacity testing shall be conducted upon request of the Director.~~
~~**[45CSR§2-3.1, 3.2, & 11.1., Emission Point ID (E-134)]**~~

~~11.1.2. The following point sources, which emit benzene (TAPs) are limited in accordance with 45CSR27 and Consent Order # CO-R27-97-17-A(94-21) within section 8.0 of the Title V permit: E-134, E-136, E-137, T-1102, T-1145, T-1225.~~
~~**[45CSR27, CO-R27-97-17-A(94-21), Emission Unit ID (E-134, E-136, E-137, T-1102, T-1145, T-1225)]**~~

~~11.1.3. The following point sources, which emit volatile organic compounds (VOCs) are limited in accordance with 45CSR21 and Consent Order # CO-R21-98-22 within section 9.0 of the Title V permit: E-134, E-136, E-137, T-1145, T-1148, T-1153, T-1241.~~
~~**[45CSR21, CO-R21-98-22, Emission Unit ID (E-134, E-136, E-137, T-1145, T-1148, T-1153, T-1241)]**~~

~~11.1.4. The permittee has identified the VME Vinyl Methyl Ether Plant as being subject to the 40CFR63, Subpart FFFF "Miscellaneous Organic NESHAP" and therefore shall be in compliance with all applicable requirements of this Federal Regulation by May 10, 2008, unless otherwise granted an extension by the Director. The permittee is required to submit a "Notification of Compliance Status" (NOCS) Report by October 7, 2008 in accordance with 40CFR§63.2520(d)(1).~~

~~On March 5, 2007 the Director approved a one year extension of compliance for the following emission points within the VME production unit:~~

~~Emission Unit ID~~	~~Emission Point ID~~	~~Emission Unit Description~~	~~2005 HAP Emissions~~
~~1145~~	~~T-1145~~	~~Methanol Storage~~	~~0.151 TPY~~
~~1148~~	~~T-1148~~	~~Methanol Storage~~	~~0.52 TPY~~
~~1153~~	~~T-1153~~	~~Methanol Storage~~	~~0.93 TPY~~
~~1154~~	~~T-1154*~~	~~Methanol Storage~~	~~Out of Service~~
~~1241~~	~~T-1241~~	~~Methanol Storage~~	~~0.43 TPY~~
		~~Total~~	~~2.031 TPY HAP~~

~~* Tank T-1154 must remain "Out of Service"~~

~~This extension expires on May 10, 2009 and the facility must be in compliance with the "MON" MACT at that time for the emission points above. This approval is based upon the information provided in Company letter dated December 7, 2006 and e-mail correspondence.~~

~~DAQ grants this extension under the authority of 40 C.F.R. §63.6(i), Subpart A "General Provisions". If, for any reason, the information used for the approval of this extension changes, DAQ reserves the right to revoke or modify this approved extension. DAQ also reserves the right to request additional information.~~
~~[40CFR63, Subpart FFFF, 45CSR34, 40CFR§63.6(i)]~~

~~11.1.5. The permittee shall submit a complete application for significant modification to the Title V permit, which incorporates the information submitted within the Notification of Compliance Status (NOCS) Report required by subpart FFFF. The Title V modification application shall be submitted by October 7, 2008, which corresponds to the maximum time allowed for NOCS submittal under this NESHAP Regulation.~~

~~This deadline for submittal of the Title V Permit modification application may be changed by mutual agreement between the permittee and the Director or upon approval of a compliance extension request granted by the Director. The permittee who wishes to request a change in a deadline shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The permittee shall include in the request whatever information he or she considers useful to convince the Director than an adjustment is warranted.~~
~~[45CSR§30-6.5.b., 45CSR§30-12.7.]~~

~~11.2. Monitoring Requirements~~

~~11.2.1. The permittee shall maintain an operating log to document all times and durations when the process header vents to the atmosphere via emission point E-137.~~
~~[45CSR21, CO-R21-98-22, Attachment B, 45CSR§30-5.1.c., Emission Unit ID (C-5F)]~~

~~11.2.2. The #5 Furnace (C-5F) shall be instrumented to alert operating personnel in the event of a boiler flame outage. Presence of a boiler flame is required to assure the 99% destruction efficiency required by both the 45CSR21 and 45CSR27 Consent Orders is being maintained.~~
~~45CSR21, CO-R21-98-22, CO-R27-97-17-A(94-21), 45CSR§30-5.1.c., Emission Unit ID (C-5F)]~~

~~11.2.3. In order to demonstrate compliance with the VOC limitation established by 45 CSR 21, Consent Order R21-98-22, the permittee shall maintain a record of the operating hours for the process unit, operating hours the unit vented through emission point E-137, number of tank transfers and associated VOC emissions for each of the following tanks T-1145, T-1148, T-1153, and T-1241 as well as the amount of VOC fed to the #5 furnace (C-5F). Process knowledge along with engineering principles may be utilized to fulfill this requirement.~~
~~[45CSR21, CO-R21-98-22,, 45CSR§30-5.1.c., Emission Unit ID (C-5F, T-1145, T-1148, T-1153, T-1241)]~~

~~11.2.4. In order to demonstrate compliance with the benzene limitations established by 45CSR27 the permittee shall maintain a record of operating hours for the process unit and E-137 venting as required by 11.2.3., the number of tank transfers, benzene liquids composition, and associated benzene emissions for the following tanks: T-1102, T-1104, T-1145, and T-1225, and the benzene concentration and flow rate fed to the #5 furnace (C-5F). Process knowledge along with engineering principles may be utilized to fulfill this requirement.~~
~~[45CSR27, CO-R27-97-17-A(94-21), 45CSR§30-5.1.c., Emission Unit ID (C-5F, T-1145, T-1225, T-1104, T-1102)]~~

~~11.2.5. In order to demonstrate compliance with the VOC limitation established by 45CSR21, Consent Order CO-R21-98-22 and 45CSR27 Consent Order CO-R27-17-A(94-21), the permittee shall maintain a record of the number of hours Vessels 7001 and 7002 are operated in burnout mode while venting to C-136 scrubber as well as the~~

~~VOC and benzene emissions from such operation. Process knowledge along with engineering principles may be utilized to fulfill this requirement.~~
~~[45CSR21, CO-R21-98-22, Emission Unit ID (C-136, Vessels 7001 and 7002)]~~

~~11.3. Testing Requirements~~

~~11.3.1. N/A~~

~~11.4. Recordkeeping Requirements~~

~~11.4.1 The permittee shall utilize the information obtained from the 11.2.3 and 11.2.5 monitoring requirements to document a compliance record for 45CSR21. VOC emissions released by the regulated point sources within the VME process unit, (Emission Point IDs: E-136, E-134, E-137, T-1145, T-1148, T-1153, T-1241) shall be calculated for each calendar month.. These monthly numbers along with operating hours shall be used to determine hourly (monthly average) and annual VOC emission estimates. Calculations shall be conducted at least every six calendar months or as otherwise requested by the Director in writing. Hourly (monthly average) and annual VOC emission estimates shall be recorded and compared to the emission limits established within Section 9.0 of this permit via 45CSR21 consent order CO-R21-98-22 to demonstrate compliance.~~
~~[45CSR21, CO-R21-98-22, 45CSR§30-5.1.c., Emission Unit ID (7001, 7002, C-5F, T-1145, T-1148, T-1153, T-1241)]~~

~~11.4.2. The permittee shall utilize the information obtained from the 11.2.4 and 11.2.5 monitoring requirement to document a compliance record for 45CSR27. Benzene emissions released by the regulated point sources within the VME process unit, (Emission Point IDs: E-136, E-134, E-137, T-1145, T-1225, T-1102) shall be calculated for each calendar month. These monthly numbers along with operating hours shall be used to determine hourly (monthly average) and annual benzene emission estimates. Calculations shall be conducted at least every six calendar months or as otherwise requested by the Director in writing. Hourly (monthly average) and annual benzene emission estimates shall be recorded and compared to the emission limits established within Section 8.0 of this permit via 45CSR27 consent order CO-R27-97-17-A(94-21) to demonstrate compliance.~~
~~[45CSR27, CO-R27-97-17-A(94-21), 45CSR§30-5.1.c., Emission Unit ID (7001, 7002, C-5F, T-1145, T-1225, T-1102)]~~

~~11.4.3. The permittee shall maintain a monthly summary record of hours that Vessels 7001 and 7002 operated in burnout mode. This monthly summary shall also include a 12 month annual rolling total in order to demonstrate compliance with the operating limit of 1,100 hours per year.~~
~~[45CSR21, CO-R21-98-22, Emission Unit ID (C-136, Vessels 7001 and 7002)]~~

~~11.5. Reporting Requirements~~

~~11.5.1. NA~~

~~11.6 Compliance Plan~~

~~11.6.1. NA~~

12.0 Source-Specific Requirements [Chemical Mixing (See Section 1.0 for Equipment List)]

12.1. Limitations and Standards

12.1.1. ~~The permittee has identified the Chemical Mixing Plant as being subject to 40CFR63, Subpart FFFF "Miscellaneous Organic NESHAP" and therefore shall be in compliance with all applicable requirements of this Federal Regulation by May 10, 2008, unless otherwise granted an extension by the Director. The permittee is required to submit a "Notification of Compliance Status" (NOCS) Report by October 7, 2008 in accordance with 40CFR§63.2520(d)(1).~~
~~[40CFR63, Subpart FFFF, 45CSR34]~~

MON MACT. The permittee shall comply with the following emission limits, work practice standards and compliance requirements as specified by §63.2450.

● Rail car loading rack (Rack ID RC050L) and tank truck loading rack (Rack ID TT050L) used to load organic liquids containing hazardous air pollutants shall be operated as Group 2 transfer operations as defined by the MON Rule.

● Storage vessel T9000 shall be operated as Group 2 as defined by the MON Rule.
[45CSR34, 40 C.F.R. §63.2450]

12.1.2. ~~The permittee shall submit a complete application for significant modification to the Title V permit, which incorporates the information submitted within the Notification of Compliance Status (NOCS) Report required by Subpart FFFF. The Title V modification application shall be submitted by October 7, 2008, which corresponds to the maximum time allowed for NOCS submittal under this NESHAP Regulation.~~

~~This deadline for submittal of the Title V Permit modification application may be changed by mutual agreement between the permittee and the Director or upon approval of a compliance extension request granted by the Director. The permittee who wishes to request a change in a deadline shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The permittee shall include in the request whatever information he or she considers useful to convince the Director than an adjustment is warranted.~~
~~[45CSR§30-6.5.b., 45CSR§30-12.7.]~~
MON MACT. The permittee shall comply with the applicable general provisions of 40 C.F.R.63 Subpart A as specified by 40 C.F.R. §63.2540 and Table 12 of Subpart FFFF.
[45CSR34, 40 C.F.R. §63.2540; 40 C.F.R. § 63 Table 12 to Subpart FFFF]

12.1.3. **MON MACT.** The permittee shall comply with the applicable equipment leak standards of the MON MACT as specified by 40 C.F.R. §63.2480(b), subpart H of 40 CFR 63. As a result, the permittee has defined the following schedule within their NOC report.

Phase	Planned Schedule for Implementation On or Before
Phase I – Beginning on the compliance date	May 10, 2008
Phase II – Beginning no later than 1 year after the compliance date	May 10, 2009
Phase III – Beginning no later than 2 ½ years after the compliance data	November 8, 2010

[45CSR34, 40 C.F.R. §63.2480]

12.1.4. **MON MACT.** The permittee shall comply with the following provisions for wastewater streams as specified by 40 C.F.R. §63.2485.

● The permittee shall develop and maintain a maintenance wastewater plan that is implemented per §63.2485(a) and §63.105.

[45CSR34, 40 C.F.R. §63.2485]

12.2. Monitoring Requirements

12.2.1. Reserved

12.3. Testing Requirements

12.3.1. Reserved

12.4. Recordkeeping Requirements

12.4.1. **MON MACT.** The permittee shall maintain the following records to demonstrate compliance with the MON and this permit.

● Maintain supporting information used to determine MON initial applicability to process vents, storage vessels, equipment leaks, transfer operations, heat exchangers, process wastewater and in-process aqueous liquid streams.

● Maintain operating scenarios and calculations of uncontrolled hazardous air pollutant emissions for process vents used to prepare the NOCS.

● Maintain records of monitoring and inspections results for equipment component leak detection and repair as required by 40 CFR 63, Subpart H.

● Maintain a record each time a safety device is opened to the air that contains hazardous air pollutants to avoid unsafe conditions.

● Maintain a copy of the following reports and notifications:
- Notice of initial notification
- Notification of compliance status report
- Semiannual compliance reports including information regarding process changes as specified by §63.2520(e)(10).

[45CSR34, 40C.F.R.§63.2525]

12.5. Reporting Requirements

12.5.1. **MON MACT**. The permittee shall submit a semiannual compliance report that includes the information specified by §63.2520(e) and the results of equipment leak monitoring and repair conducted per 40 CFR 63 Subpart H.

[45CSR34, 40 C.F.R. §63.2520]

12.6 Compliance Plan

N/A

Attachment A

Sample Record Keeping Format
Union Carbide Corporation: Boiler 27
R13-2141C; Plant ID.: 0390003

Hours of Operation and Natural Gas Usage[1],[2]

Month/Year:

Month	Natural Gas Usage (SCF)		Hours of Operation	Hourly Natural Gas Consumption Rate[4] (SCF/hr)	Initials [5]
	Current Month	Rolling Yearly Total[3]			
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

Note:
(1) The CERTIFICATION OF DATA ACCURACY statement appearing on the reverse side of this form must be completed upon the written request of the Director or his duly-authorized representative.
(2) This record shall be maintained onsite for a period of five (5) years from the date of certification. It shall be made available upon request to the Director or his (her) authorized representative.
(3) The rolling yearly total for natural gas usage is not to exceed 3.092×10^3 million cubic feet.
(4) Natural gas consumption is not to exceed 353,000 scfm/hr (divide monthly usage by hours of operation for that month).
(5) The Production Leader or EHS Delivery Leader is required to initialize the reporting form within fifteen (15) days from the end of the calendar month.

Attachment B

APPENDIX A
R13-2033B
UNION CARBIDE CORPORATION
SOUTH CHARLESTON PLANT

Record of Total Consumption of Natural Gas by Boiler 26s

Year

Month	Natural Gas Boiler, 26s (SCF)	Responsible Official's Initials [3]
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		
TOTAL (SCF)		
TOTAL (permit)	3047.75 x 10^6 SCF	

Attachment C

45CSR21 Consent Order - Attachment A "Emission Limitations"

Process Area Description and Identification Number	Name of Process Equipment Vented to Control Device and Equipment Identification Number	Maximum Theoretical Emissions (MTE) of the Source (lbs/hr)	Emission Point Identification Number	Control Device Identification Number	Control Device Description	Efficiency of Control Device (Percent)	Maximum Allowable Hours of Operation (hrs/yr)	Maximum Allowable VOC Emissions (lbs/hr)	Maximum Allowable VOC Emissions (lbs/yr)
~~800-Alkyl Alkanolamines~~	~~Tank 368~~	~~48.90~~	~~E-800~~	~~C-800~~	~~Scrubber/Vapor Balance~~	~~99~~	~~8,760~~	~~1.00~~	~~3,070~~
~~800-Alkyl Alkanolamines~~	~~Tank 571~~	~~225.00~~	~~E-800~~	~~C-800~~	~~Scrubber/Vapor Balance~~	~~99~~	~~varies~~	~~2.30~~	~~Included with above~~
~~800-Alkyl Alkanolamines~~	~~System 800 Reaction System~~	~~29.00~~	~~E-800~~	~~C-800~~	~~Scrubber~~	~~98~~	~~8,760~~	~~5.80~~	~~Included with above~~
~~800-Alkyl Alkanolamines~~	~~Line Double Block and Bleed~~	~~21.80~~	~~E-805~~	~~C-801~~	~~Scrubber~~	~~90~~	~~165~~	~~2.18~~	~~30.00~~
031-North Charleston	Tank 9011	nap	T-9011	C-9011	floating roof	95	8,760	0.73	3,844
031-North Charleston	Tank 9015	7.06	T-9015	not applicable	not applicable	0	8,760	10.30	4,819
700-Oxide Adducts System	Reactor System Equipment	3,212.00	multiple point sources	not applicable	Extended reaction	94 (98% for epoxides)	8,760	186.00	9,857
700-Oxide Adducts System	Product Treatment and Product Treatment Beds	39.00	E-709/710/711 (Includes E-720/721/722 from Original CO)	C-709/710/711	Vacuum jet condensers	85	8,760	6.00	33,814
700-Oxide Adducts System	Solvent column vent	22.00	E-717	not applicable	not applicable	0	8,760	22.00	1,300
700-Oxide Adducts System	Solvent Evaporator Vent	22.00	E-718	not applicable	not applicable	0	8,760	22.00	1,300
~~105-Vinyl Methyl Ether Process~~	~~Process Vents~~	~~310.00~~	~~E-134~~	~~C-5F~~	~~furnace~~	~~99~~	~~8,760~~	~~3.10~~	~~27,156~~
~~105-Vinyl Methyl Ether Process~~	~~Tank 1145~~	~~8.17~~	~~T-1145~~	~~not applicable~~	~~not applicable~~	~~0~~	~~8,760~~	~~8.17~~	~~1,871~~
~~105-Vinyl Methyl Ether Process~~	~~Tank 1148~~	~~11.90~~	~~T-1148~~	~~not applicable~~	~~not applicable~~	~~0~~	~~8,760~~	~~11.90~~	~~1,931~~
~~105-Vinyl Methyl Ether Process~~	~~Tank 1153~~	~~6.60~~	~~T-1153~~	~~not applicable~~	~~not applicable~~	~~0~~	~~8,760~~	~~6.60~~	~~3,268~~
~~105-Vinyl Methyl Ether Process~~	~~Tank 1154~~	~~-~~	~~Out of Service~~	~~0~~	~~0~~	~~0~~	~~0~~	~~-~~	~~-~~
~~105-Vinyl Methyl Ether Process~~	~~Tank 1241~~	~~6.30~~	~~T-1241~~	~~not applicable~~	~~not applicable~~	~~not applicable~~	~~8,760~~	~~6.30~~	~~3,268~~
~~105-Vinyl Methyl Ether Process~~	~~Vessels 7001 and 7002~~	~~9.30~~	~~E-136~~	~~C-136~~	~~Water Scrubber~~	~~0~~	~~1,100~~	~~9.30~~	~~2,120~~
221 - Gum Base Plant	GBHDR (Header to IPH - includes T3021, T3030, T03031, T3080, E503, Vessel 650R and other small vents)	88.34	E25 or E27	B25 or B27	IPH	99	8,760	0.88	172
1000-Specialty Surfactants	SSHDR (Header to Scrubber) Includes but not limited to Alkox Reactor, Large Cap Reactor, Small Cap Reactor and Tank 8370	880.00	E-1081-3	C-8400/C-8110/C-8130	Scrubbers	90	8,760	88.00	19,760
1000-Specialty Surfactants	Tank 8352	15.00	T-8352	not applicable	not applicable	0	8,760	15.00	4,900
1000-Specialty Surfactants	Tank 8362	10.00	T-8362	not applicable	not applicable	0	8,760	10.00	included with above
1000-Specialty Surfactants	Loading Rack	15.00	L-1004	not applicable	not applicable	0	8,760	15.00	included with above

Control Device Abbreviations:									
Condenser - CON			**Packed Bed Scrubber - PBS**					**Carbon Adsorber - CA**	
Flare - FL			**Venturi Scrubber - VS**					**Refrigeration of Tank - RF**	
Floating Roof Secondary Seal - FS			**Incinerator - INC**					**Other - Description**	
Floating Roof Primary Seal - FP			**Vapor Recovery System - VRS**						

Attachment D

45CSR21 Consent Order - Attachment B "Excess Emissions Scenarios"

Union Carbide Corporation – South Charleston Facility
Attachment B to Regulation 21 Consent Order
Revised ~~October 2006~~ **April 2009**

ROUTINE/NORMAL OPERATING & MAINTENANCE SCENARIOS RESULTING IN EXCESS EMISSIONS

Process Area Description and Identification Number	**Emission Point Identification Number**	**Description of Excess Emission Scenario** **SU - Start-up** **SD - Shutdown** **M - Maintenance** **(Describe Activity)**	Description of Controls and Measures used to Minimize VOC Emissions (During each Scenario)	**Duration of Excess Emission Scenario (Hours) approximate**	**Typical/ Maximum Number of Events per Year approximate /**	**Average/Peak VOC Emissions per Event (Pounds per Hour) approximate /**
NCDT (031)	T-9010	M - Use of this swing tank for NCDT product under emergency situations (i.e. dedicated storage tank develops a leak)	None	1 / 2 months	3 / 5	83 / 90
~~**VME (105)**~~	~~**E-137**~~	~~**SD - #5 Furnace not available**~~	~~**Vent Condenser**~~	~~**48 / 72**~~	~~**2 / 4**~~	~~**50 / 67**~~
Gum Base Plant (221)	T3021, T3030, T3031, T3080, E-531 or E-533	SD – Island Powerhouse not available.	Transfers to/from tanks will be discontinued at completion of batch until IPH is available.	24 / 48	2 / 20	12 / 30
Gum Base Plant (221)	E-531 or E-533	SD – Island Powerhouse not available.	Process condenser in operation	24 / 48	2 / 20	12 / 20
Oxide Adducts Plant (700)	E-717	SU - Excess startups due to malfunctions, etc.	Automation prevents startups without condenser fan in service	1 / 2	52 / 150	20 / 40

***VME Plant has been permanently shutdown.**

Appendix A
" NOx Budget Permit Application"

NO_X Budget Permit Application

Page 1

Division of Air Quality

The West Virginia Department of Environmental Protection, Division of Air Quality has prepared this NO_X Budget Permit Application for affected sources under 45CSR1, 45CSR26, and/or 40 CFR part 97 (Section 126). Please refer to sections 21 & 22 of 45CSR1, 45CSR26 and/or 40 CFR part 97, as applicable.

This NO_X Budget Permit Application is submitted under: X 45CSR1 45CSR26 X Section 126
(Please check all that apply)

This submission is: X New Revised

STEP 1
Identify the source by plant name, State, and ORIS or facility code.

Union Carbide Corporation - South Charleston Plant
Plant Name Company ID Number 03900003 ORIS/Facility Code 880026

STEP 2
Enter the unit ID# and description for each NO_X Budget Unit.

Unit ID#	Description
B25	Coal fired industrial boiler
B26	Natural gas fired industrial boiler
B27	Natural gas fired industrial boiler

STEP 3
Read the standard requirements and the certification, enter the name of the NO_X authorized account representative, and sign and date.

Standard Requirements

(a) Permit Requirements.
(1) The NO_X authorized account representative of each NO_X Budget source required to have a federally enforceable permit and each NO_X Budget unit required to have a federally enforceable permit at the source shall:
(i) Submit to the Director of the Division of Air Quality (Director) a complete NO_X Budget permit application under 45CSR1-22, 45CSR26-22, and/or § 97.22 in accordance with a deadline specified by the Director under 45CSR1-21.2 and 21.3, 45CSR26-21.2 and 21.3, and/or § 97.21(b) and (c) as applicable;
(ii) Submit in a timely manner any supplemental information that the Director determines is necessary in order to review a NO_X Budget permit application and issue or deny a NO_X Budget permit.
(2) The owners and operators of each NO_X Budget source required to have a federally enforceable permit and each NO_X Budget unit required to have a federally enforceable permit at the source shall have a NO_X Budget permit issued by the Division of Air Quality and operate the unit in compliance with such NO_X Budget permit.

Union Carbide Corporation - South Charleston Plant
Plant Name (from Step 1)

(b) Monitoring Requirements.
(1) The owners and operators and, to the extent applicable, the NO_x authorized account representative of each NO_x Budget source and each NO_x Budget unit at the source shall comply with the monitoring requirements of sections 70 through 76 of 45CSR1 or 45CSR26; and/or subpart H of 40 CFR part 97, as applicable.
(2) The emissions measurements recorded and reported in accordance with sections 70 through 76 of 45CSR1 or 45CSR26, and/or subpart H of 40 CFR part 97 shall be used to determine compliance by the unit with the NO_x Budget emissions limitation under paragraph (c).

(c) Nitrogen Oxides Requirements.
(1) The owners and operators of each NO_x Budget source and each NO_x Budget unit at the source shall hold NO_x allowances available for compliance deductions under subsections 45CSR1-54.1, 54.2, 54.5, or 54.6; 45CSR26-54.1, 54.2, 54.5, or 54.6; and/or § 97.54(a), (b), (e), or (f), as applicable, as of the NO_x allowance transfer deadline, in the unit's compliance account and the source's overdraft account in an amount not less than the total NO_x emissions for the ozone season from the unit, as determined in accordance with sections 70 through 76 of 45CSR1 or 45CSR26 and/or subpart H of 40 CFR part 97, as applicable, plus any amount necessary to account for actual heat input under subsection 42.5 of 45CSR1 or 45CSR26, and/or § 97.42(e) for the ozone season period or to account for excess emissions for a prior ozone season under subsection 54.4 of 45CSR1 or 45CSR26, and/or § 97.54(d), or to account for withdrawal from the NO_x Budget Trading Program, or a change in regulatory status of a NO_x Budget opt-in unit under sections 86 or 87 of 45CSR1, and/or § 97.86 or § 97.87, as applicable.
(2) Each ton of nitrogen oxides emitted in excess of the NO_x Budget emissions limitation shall constitute a separate violation of 45CSR1 or 45CSR26, §§22-5-1 et seq., and/or 40 CFR part 97, and the Clean Air Act.
(3) A NO_x Budget unit shall be subject to the requirements under paragraph (c)(1) starting on the later of: May 31, 2004 for NO_x Budget units under 45CSR1, 45CSR26 and/or 40 CFR part 97; or the date on which the unit commences operation.
(4) NO_x allowances shall be held in, deducted from, or transferred among NO_x Allowance Tracking System accounts in accordance with sections 40 through 43, 50 through 57, 60 through 62, and 70 through 76 of 45CSR1 or 45CSR26; sections 80 through 88 of 45CSR1, and/or subparts E, F, G, and I of 40 CFR part 97, as applicable.
(5) A NO_x allowance shall not be deducted, in order to comply with the requirements under paragraph (c)(1), for an ozone season in a year prior to the year for which the NO_x allowance was allocated.
(6) A NO_x allowance allocated by the Director or EPA Administrator under the NO_x Budget Trading Program is a limited authorization to emit one ton of nitrogen oxides in accordance with the NO_x Budget Trading Program. No provision of the NO_x Budget Trading Program, the NO_x Budget permit application, the NO_x Budget permit, or an exemption under subsection 4.2 or section 5 of 45CSR1 or 45CSR26, and/or § 97.4(b) or § 97.5, as applicable, and no provision of law shall be construed to limit the authority of the Division of Environmental Protection or the United States to terminate or limit such authorization.
(7) A NO_x allowance allocated by the Director or EPA Administrator under the NO_x Budget Trading Program does not constitute a property right.
(8) Upon recordation by the EPA Administrator, every allocation, transfer, or deduction of a NO_x allowance to or from a NO_x Budget unit's compliance account or the overdraft account of the source where the unit is located is incorporated automatically in any NO_x Budget permit of the NO_x Budget unit.

(d) Excess Emissions Requirements.
(1) The owners and operators of a NO_x Budget unit that has excess emissions in any ozone season shall:
(i) Surrender the NO_x allowances required for deduction under subdivision 54.4.a of 45CSR1 or 45CSR26, and/or § 97.54(d)(1) as applicable; and
(ii) Pay any fine, penalty, or assessment or comply with any other remedy imposed under subdivision 54.4.c of 45CSR1 or 45CSR26, and/or § 97.54(d)(3).

(e) Recordkeeping and Reporting Requirements.
(1) Unless otherwise provided, the owners and operators of the NO_x Budget source and each NO_x Budget unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Director or the EPA Administrator.
(i) The account certificate of representation under 45CSR1-13 or 45CSR26-13 and/or § 97.13, as applicable, for the NO_x authorized account representative for the source and each NO_x Budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new account certificate of representation under 45CSR1-13 or 45CSR26-13 and/or § 97.13 (as applicable) changing the NO_x authorized account representative.
(ii) All emissions monitoring information, in accordance with sections 70 through 76 of 45CSR1 or 45CSR26; and/or subpart H of 40 CFR part 97 (as applicable); provided that to the extent that sections 70 through 76 of 45CSR1 or 45CSR26; and/or subpart H of 40 CFR part 97 (as applicable) provides for a 3-year period for recordkeeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the NO_x Budget Trading Program.
(iv) Copies of all documents used to complete a NO_x Budget permit application and any other submission under the NO_x Budget Trading Program or to demonstrate compliance with the requirements of the NO_x Budget Trading Program.
(2) The NO_x authorized account representative of a NO_x Budget source and each NO_x Budget unit at the source shall submit the reports and compliance certifications required under the NO_x Budget Trading Program, including those under sections 30 and 70 through 76 of 45CSR1 or 45CSR26; sections 80 through 88 of 45CSR1, and/or subparts D, H, or I of 40 CFR part 97, as applicable.

NON-CONFIDENTIAL

Union Carbide Corporation - South Charleston Plant Plant Name (from Step 1)	NO_x Budget Permit Application Page 3

(f) Liability.
(1) Any person who knowingly violates any requirement or prohibition of the NO_x Budget Trading Program, a NO_x Budget permit, or an exemption under subsection 4.2 or section 5 of 45CSR1 or 45CSR26; and/or § 97.4(b) or § 97.5 shall be subject to enforcement pursuant to W. Va. Code §§22-5-1 et seq. or the Clean Air Act.
(2) Any person who knowingly makes a false material statement in any record, submission, or report under the NO_x Budget Trading Program shall be subject to criminal enforcement pursuant to §§22-5-1 et seq. or the Clean Air Act..
(3) No permit revision shall excuse any violation of the requirements of the NO_x Budget Trading Program that occurs prior to the date that the revision takes effect.
(4) Each NO_x Budget source and each NO_x Budget unit shall meet the requirements of the NO_x Budget Trading Program.
(5) Any provision of the NO_x Budget Trading Program that applies to a NO_x Budget source or the NO_x authorized account representative of a NO_x Budget source shall also apply to the owners and operators of such source and of the NO_x Budget units at the source.
(6) Any provision of the NO_x Budget Trading Program that applies to a NO_x Budget unit or the NO_x authorized account representative of a NO_x budget unit shall also apply to the owners and operators of such unit. Except with regard to the requirements applicable to units with a common stack under sections 70 through 76 of 45CSR1 or 45CSR26, and/or subpart H of 40 CFR part 97, as applicable, the owners and operators and the NO_x authorized account representative of one NO_x Budget unit shall not be liable for any violation by any other NO_x Budget unit of which they are not owners or operators or the NO_x authorized account representative and that is located at a source of which they are not owners or operators or the NO_x authorized account representative.

(g) Effect on Other Authorities.
No provision of the NO_x Budget Trading Program, a NO_x Budget permit application, a NO_x Budget permit, or an exemption under subsection 4.2 or section 5 of 45CSR1 or 45CSR26; and/or § 97.4(b) or § 97.5, shall be construed as exempting or excluding the owners and operators and, to the extent applicable, the NO_x authorized account representative of a NO_x Budget source or NO_x Budget unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

Certification

I am authorized to make this submission on behalf of the owners and operators of the NO_x Budget sources or NO_x Budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name: J. L. Blatt, WV Operations Responsible Care® Leader	
Signature J L Blatt	Date 2/08/02

Appendix B
" CAIR Permit Application"

CAIR Permit Application

Page 1

For sources subject to the Clean Air Interstate Rule Trading Programs under 45CSR39, 45CSR40 and 45CSR41, the West Virginia Department of Environmental Protection, Division of Air Quality has prepared this CAIR Permit Application. Please refer to sections 21 and 22 of 45CSR39, 45CSR40 and 45CSR41, as applicable.

This submission is: ☐ **New** ☒ **Revised**

STEP 1
Identify the source by plant name, and ORIS or facility code

Plant Name	West Virginia ID Number	ORIS/Facility Code
Union Carbide Corporation	039-00003	50151

STEP 2
Enter the unit ID# for each CAIR unit and indicate to which CAIR programs each unit is subject (by placing an "X" in the column)

Unit ID#	NO_x Annual	NO_x Ozone Season	SO_2 Annual
B25		X	
B26		X	
B27		X	

STEP 3
Read the standard requirements and the certification, enter the name of the CAIR designated representative, and sign and date

Standard Requirements

(a) Permit Requirements.

(1) The CAIR designated representative of each CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO_2 source (as applicable) required to have a Title V operating permit and each CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO_2 unit (as applicable) required to have a Title V operating permit at the source shall:

(i) Submit to the Secretary a complete CAIR permit application under 45CSR§39-22, 45CSR§40-22 and 45CSR§41-22 (as applicable) in accordance with the deadlines specified in 45CSR§39-21, 45CSR§40-21 and 45CSR§41-21 (as applicable); and

(ii) Submit in a timely manner any supplemental information that the Secretary determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.

(2) The owners and operators of each CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO_2 source (as applicable) required to have a Title V operating permit and each CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO_2 unit (as applicable) required to have a Title V operating permit at the source shall have a CAIR permit issued by the Secretary under sections 20 through 24 of 45CSR39, 45CSR40 and 45CSR41 (as applicable) for the source and operate the source and the unit in compliance with such CAIR permit.

(3) Except as provided in sections 80 through 88 of 45CSR39, 45CSR40 and 45CSR41, the owners and operators of a CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO_2 source (as applicable) that is not otherwise required to have a Title V operating permit and each CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO_2 unit (as applicable) that is not otherwise required to have a Title V operating permit are not required to submit a CAIR permit application and to have a CAIR permit, under sections 20 through 24 of 45CSR39, 45CSR40 and 45CSR41 (as applicable) for such CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO_2 source (as applicable) and such CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO_2 unit (as applicable).

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CAIR Permit Application
Page 2

STEP 3, continued

(b) Monitoring, reporting and recordkeeping requirements.

(1) The owners and operators and the CAIR designated representative, of each CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO_2 source (as applicable) and each CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO_2 unit (as applicable) at the source shall comply with the monitoring, reporting and recordkeeping requirements of sections 7 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable).

(2) The emissions measurements recorded and reported in accordance with sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable) shall be used to determine compliance by each CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO_2 source (as applicable) with the CAIR NO_x Annual emissions limitation, CAIR NO_x Ozone Season emissions limitation and CAIR SO_2 emissions limitation (as applicable) under 45CSR§39-6.3, 45CSR§40-6.3 and 45CSR§41-6.3 (as applicable).

(c) Nitrogen oxides annual emissions requirements.

(1) As of the allowance transfer deadline for the 2009 control period and each control period thereafter, the owners and operators of each CAIR NO_x Annual source and each CAIR NO_x Annual unit at the source shall hold, in the source's compliance account, CAIR NO_x Annual allowances available for compliance deductions for the control period under 45CSR§39-54.1 in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_x Annual units at the source, as determined in accordance with sections 70 through 75 of 45CSR39.

(2) A CAIR NO_x Annual unit shall be subject to the requirements under 45CSR§39-6.3.a for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under subdivisions 70.2.a, 70.2.b, or 70.2.e of 45CSR39, and for each control period thereafter.

(3) A CAIR NO_x Annual allowance shall not be deducted, for compliance with the requirements under 45CSR§39-6.3.a, for the control period in a calendar year before the year for which the CAIR NO_x Annual allowance was allocated.

(4) CAIR NO_x Annual allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Allowance Tracking System accounts in accordance with sections 50 through 62, and 80 through 88 of 45CSR39.

(5) A CAIR NO_x Annual allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_x Annual Trading Program. No provision of the CAIR NO_x Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 45CSR§39-5 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR NO_x Annual allowance does not constitute a property right.

(7) Upon recordation by the Administrator under sections 40 through 62, and 80 through 88 of 45CSR39, every allocation, transfer, or deduction of a CAIR NO_x Annual allowance to or from a CAIR NO_x Annual source's compliance account is incorporated automatically in any CAIR permit of the source.

(d) Nitrogen oxides ozone season emissions requirements.

(1) As of the allowance transfer deadline for the 2009 ozone season and each ozone season thereafter, the owners and operators of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_x Ozone Season allowances available for compliance deductions for the ozone season under 45CSR§40-54.1 in an amount not less than the tons of total nitrogen oxides emissions for the ozone season from all CAIR NO_x Ozone Season units at the source, as determined in accordance with sections 70 through 75 of 45CSR40.

(2) A CAIR NO_x Ozone Season unit shall be subject to the requirements under 45CSR§40-6.3.a for the ozone season starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under subdivisions 70.2.a, 70.2.b, 70.2.c or 70.2.g of 45CSR40 and for each ozone season thereafter.

(3) A CAIR NO_x Ozone Season allowance shall not be deducted, for compliance with the requirements under 45CSR§40-6.3.a, for an ozone season in a calendar year before the year for which the CAIR NO_x Ozone Season allowance was allocated.

(4) CAIR NO_x Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Ozone Season Allowance Tracking System accounts in accordance with sections 50 through 62, and 80 through 88 of 45CSR40.

(5) A CAIR NO_x Ozone Season allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_x Ozone Season Trading Program. No provision of the CAIR NO_x Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 45CSR§40-5 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR NO_x Ozone Season allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subdivision 43.3, sections 51 through 57, 60 through 62, and 80 through 88 of 45CSR40, every allocation, transfer, or deduction of a CAIR NO_x Ozone Season allowance to or from a CAIR NO_x Ozone Season source's compliance account is incorporated automatically in any CAIR permit of the source.

(e) Sulfur dioxide annual emission requirements.

(1) As of the allowance transfer deadline for the 2010 control period and each control period thereafter, the owners and operators of each CAIR SO_2 source and each CAIR SO_2 unit at the source shall hold, in the source's compliance account, a tonnage equivalent of CAIR SO_2 allowances available for compliance deductions for the control period, as determined in accordance with subsections 54.1 and 54.2 of 45CSR§41 in an amount not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO_2 units at the source, as determined in accordance with sections 70 through 75 of 45CSR41.

(2) A CAIR SO_2 unit shall be subject to the requirements under 45CSR§41-6.3.a for the control period starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under subdivisions 70.2.a, 70.2.b, or 70.2.e of 45CSR41 and for each control period thereafter.

(3) A CAIR SO_2 allowance shall not be deducted, for compliance with the requirements under 45CSR§41-6.3.a, for a control period in a calendar year before the year for which the CAIR SO_2 allowance was allocated.

(4) CAIR SO_2 allowances shall be held in, deducted from, or transferred into or among CAIR SO_2 Allowance Tracking System accounts in accordance with sections 51through 62, and 80 through 88 of 45CSR41.

(5) A CAIR SO_2 allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO_2 Trading Program. No provision of the CAIR SO_2 Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 45CSR§41-5 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR SO_2 allowance does not constitute a property right.

(7) Upon recordation by the Administrator under sections 51 through 57, 60 through 62, and 80 through 88 of 45CSR41, every allocation, transfer, or deduction of a CAIR SO_2 allowance to or from a CAIR SO_2 source's compliance account is incorporated automatically in any CAIR permit of the source.

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Page 3

STEP 3, continued

(f) Excess emissions requirements.

~~(1) If a CAIR NO_x Annual source emits nitrogen oxides during any control period in excess of the CAIR NO_x Annual emissions limitation, then:~~

~~(i) The owners and operators of the source and each CAIR NO_x Annual unit at the source shall surrender the CAIR NO_x Annual allowances required for deduction under 45CSR§39-54.4.a and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or West Virginia Code §22-5-1 et seq; and~~

~~(ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 45CSR39, the Clean Air Act, and West Virginia Code §22-5-1 et seq.~~

(2) If a CAIR NO_x Ozone Season source emits nitrogen oxides during any ozone season in excess of the CAIR NO_x Ozone Season emissions limitation, then:

(i) The owners and operators of the source and each CAIR NO_x Ozone Season unit at the source shall surrender the CAIR NO_x Ozone Season allowances required for deduction under 45CSR§40-54.4.a and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or West Virginia Code §22-5-1 et seq; and

(ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 45CSR40, the Clean Air Act, and West Virginia Code §22-5-1 et seq.

~~(3) If a CAIR SO_2 source emits sulfur dioxide during any control period in excess of the CAIR SO_2 emissions limitation, then:~~

~~(i) The owners and operators of the source and each CAIR SO_2 unit at the source shall surrender the CAIR SO_2 allowances required for deduction under 45CSR§41-54.4.a and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or West Virginia Code §22-5-1 et seq; and~~

~~(ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 45CSR41, the Clean Air Act, and West Virginia Code §22-5-1 et seq.~~

(g) Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of a CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO_2 source (as applicable) and each CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO_2 unit (as applicable) at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Secretary or the Administrator.

(i) The certificate of representation under 45CSR§39-13, 45CSR§40-13 and 45CSR§41-13 (as applicable) for the CAIR designated representative for the source and each CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO_2 unit (as applicable) at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 45CSR§39-13, 45CSR§40-13 and 45CSR§41-13 (as applicable) changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable), provided that to the extent that sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable) provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program and CAIR SO_2 Trading Program (as applicable).

(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program and CAIR SO_2 Trading Program (as applicable) or to demonstrate compliance with the requirements of the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program and CAIR SO_2 Trading Program (as applicable).

(2) The CAIR designated representative of a CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO_2 source (as applicable) and each CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO_2 unit (as applicable) at the source shall submit the reports required under the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program and CAIR SO_2 Trading Program (as applicable) including those under sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable).

(h) Liability.

(1) Each CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO_2 source (as applicable) and each NO_x unit, CAIR NO_x Ozone Season unit and CAIR SO_2 unit (as applicable) shall meet the requirements of the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program and CAIR SO_2 Trading Program (as applicable).

(2) Any provision of the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program or CAIR SO_2 Trading Program (as applicable) that applies to a CAIR NO_x Annual source, CAIR NO_x Ozone Season source or CAIR SO_2 source (as applicable) or the CAIR designated representative of a CAIR NO_x Annual source, CAIR NO_x Ozone Season source or CAIR SO_2 source (as applicable) shall also apply to the owners and operators of such source and of the CAIR NO_x Annual units, CAIR NO_x Ozone Season units or CAIR SO_2 units (as applicable) at the source.

(3) Any provision of the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program or CAIR SO_2 Trading Program (as applicable) that applies to a CAIR NO_x Annual unit, CAIR SO_2 unit or CAIR NO_x Ozone Season unit (as applicable) or the CAIR designated representative of a CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit or CAIR SO_2 unit (as applicable) shall also apply to the owners and operators of such unit.

(i) Effect on Other Authorities.

No provision of the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program and CAIR SO_2 Trading Program (as applicable), a CAIR permit application, a CAIR permit, or an exemption under 45CSR§39-5, 45CSR§40-5, or 45CSR§41-5 (as applicable) shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO_2 source (as applicable) or CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO_2 unit (as applicable) from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

Union Carbide Corporation
Plant Name

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STEP 3, continued

Certification

I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

J. L. Bowman
CAIR Designated Representative

Signature Jennifer L. Bowman Date Sept. 19, 2007